INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

HEARINGS

BEFORE THE

TEMPORARY NATIONAL ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

SEVENTY-SIXTH CONGRESS

THIRD SESSION

PURSUANT TO

Public Resolution No. 113
(Seventy-fifth Congress)

AUTHORIZING AND DIRECTING A SELECT COMMITTEE TO MAKE A FULL AND COMPLETE STUDY AND INVESTIGATION WITH RESPECT TO THE CONCENTRATION OF ECONOMIC POWER IN, AND FINANCIAL CONTROL OVER, PRODUCTION AND DISTRIBUTION OF GOODS AND SERVICES

PART 25

CARTELS

JANUARY 15, 16, 17, 18, AND 19, 1940

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[1] See footnote 1 on p. 13346, infra.

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INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

MONDAY, JANUARY 15, 1940

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Friday, January 12, 1940, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney, presiding.

Present: Senators O'Mahoney, chairman, and King, Representatives Sumners, Williams, and Reece; Messrs. O'Connell, Pike, Lubin, and Brackett.

Present also: Willis J. Ballinger Ellen L. Love, Joseph E. Sheehy, and William T. Kelley, Federal Trade Commission; Theodore J. Kreps, economic adviser; Samuel Moment, economic analyst; and David E. Scoll, counsel to the committee.

The CHAIRMAN. The committee will please come to order. It is a presentation on cartels, is it not?

Mr. SCOLL. Yes, sir.

The CHAIRMAN. Will you be good enough to make a preliminary statement giving your name and the authority by which you are presenting this?

Mr. SCOLL. My name is David E. Scoll. I am counsel for the T. N. E. C. in the cartel investigation.

The CHAIRMAN. Let us call it a study instead of an investigation. People use the word "investigation" in a sense which this committee has never intended. I always try to emphasize that fact, that we are studying things and not investigating them.

Mr. SCOLL. I am glad, Senator, that you corrected me on that, because this hasn't been an investigation in any sense of the word. We have made a study and those who have cooperated with us in this have regarded it as a study.

Our first witness will be Dr. Kreps. Are you ready, Dr. Kreps?

Dr. KREPS. I am.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing by the truth, so help you God?

Dr. KREPS. I do.

TESTIMONY OF DR. THEODORE J. KREPS, ECONOMIC ADVISER, TEMPORARY NATIONAL ECONOMIC COMMITTEE, WASHINGTON, D. C.

Mr. SCOLL. Will you tell the reporter your name, please?

Dr. KREPS. Theodore J. Kreps, Graduate School of Business, Stanford University, Palo Alto, Calif.

Mr. SCOLL. What is your position with the committee, Dr. Kreps?

Dr. KREPS. I am economic adviser to the committee.

Mr. SCOLL. And you have made a study of cartels?

Dr. KREPS. For many years. I started in 1926 when I made an intensive investigation of the potash cartel. Those studies led to a year's travel in Europe, at which time I made an intensive investigation of the dyestuffs cartel and spent a better part of the time in the private library of the Interessen-Gemeinschaft at Hochst-am-Main.

Mr. SCOLL. Have you prepared some material on cartels especially for this study?

DEFINITION AND FUNCTIONS OF CARTELS

Dr. KREPS. I have. There is a good deal of misunderstanding about cartels. I noted, for example, this morning the report that cartels is the French word for monopoly. They are, of course, no such thing. Cartels, if I may be permitted to go on with the statement, are a cardinal feature of modern industrialism.

They appear during periods of distress in those industries in which producers are few in number. They bob up especially in those lines of enterprise which require advanced machine technology and heavy investment in plant and equipment. They crop up wherever patents or market outlets or mineral deposits are concentrated in few hands. Sometimes their formation follows merely the exclusion or embarrassment of competitors by tariffs or trade barriers or high transportation costs. Cartels are a manifestation of oligopoly, or in rare instances oligopsony.

The CHAIRMAN. Let's get a common word for that, Dr. Kreps.

Dr. KREPS. Oligopoly means few sellers, where industries have become concentrated to such an extent that there are relatively only a handful of sellers. Oligopsony means few buyers.

Cartels exist, or have existed, in every modern industrialized nation in the world. The word "cartel" is probably a derivative of the Latin word "carta," meaning paper or document. In military language it is a document signed by belligerents arranging for the mutual exchange of prisoners. The military analogy is highly suggestive, for cartels are basically and in general agreements or treaties between warring businesses. They embody terms of economic armistice, mitigating the competitive struggle.

Cartels vary so much in detail that the problem of defining a cartel has caused a great deal of controversy. The literature in voluminous. One authority, Dr. Kurt Wiedenfeld, in his article on cartels in the Encyclopedia of the Social Sciences, states:

> The term cartel designates an association based upon a contractual agreement between enterprises in the same field of business which, while retaining their legal independence, associate themselves with a view to exerting a monopolistic influence on the market.

The word "monopolistic" in this definition makes many witnesses squirm, even those who remember that Wiedenfeld, Liefmann, and other writers on cartels generally use the word "monopolistic" in a broad sense which includes restrictive or stabilizing efforts of business.

Mr. BALLINGER. Dr. Kreps, stabilizing efforts would result in price-fixing, monopolistic in nature, wouldn't it?

Dr. KREPS. I am not sure.

Senator KING. Not always, by any means.

Dr. KREPS. On the other hand, the international cartel experts comprising the committee set up by the League of Nations defines cartels as follows:

> Cartels are associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale.

This definition is obviously broad. Many writers feel that the term "cartels" should be reserved exclusively for those combinations of independent producers or sellers which are designed to limit the individual risks involved in their businesses, particularly during periods of over-capacity and cutthroat competition. This concept underlies not only the oft-quoted statement that "cartels are children of necessity," but also the observation made by Schoenlank in 1896 that the natal hour of Continental European cartels can be definitely established as the black day of the famous crash of 1873.

Cartels can be classified in many ways, depending on one's purpose and convenience. A somewhat detailed classification is shown in "Exhibit No. 2077," which is at the back of the mimeographed statement which has been given to the members of this committee, and in "Exhibit No. 2076," which presents merely in tabular form the information which is presented here in graphic form. I should like to submit the table for the record.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 2076" and is included in the appendix on p. 13365.)

Senator KING. The cartel system lends itself, or did lend itself, more to the German philosophy of government, the authoritative if not the authoritarian theory of government, than to democratic government.

Dr. KREPS. I think that proposition, too, requires a little investigation. I admit that there are some who view cartels in that light, and if you define cartels in a very narrow sense it is accurate, but obviously cartels as defined in the sense that is given in chart I by Dr. Bruno Burn in his book on "Codes, Cartels, National Planning," include a number of perfectly innocuous types of organization. You will note there that what they call a "Term Cartel," is really an agreement on trade practices, from which cartels increase the area of their agreement to almost every phase of a business enterprise.

Senator KING. What I had in mind was this: following the World War I was in Germany for some time upon two occasions and I looked into the dye industry there and into the General Electric and into the industries, and I found, at least that was the conclusion which I reached, that because of the very unfortunate condition in which the German industry found itself following the war, its industrial life had been shattered, its economic life was at a very low ebb and there was an effort of the Government collaborating with industry to resuscitate their business and to find outlets for commodities of Germany because the scientific and chemical development was competent to create an abundance.

Dr. KREPS. That is correct. After the war there was a terrific upsurge of the cartel movement in Germany.

The CHAIRMAN. What is the common acceptance of the term?

Dr. KREPS. There isn't any common acceptance.

The Chairman. Well, when we talk of the European cartel system, what do we usually mean?

Dr. Kreps. It depends in part on one's economic predilections in part on one's political convictions.

The Chairman. Of course, there can be differences of opinion theoretically with respect to almost any set of circumstances in human existence, but if there is such a thing as a cartel system, then as a practical matter it ought to be subject to easy definition, simple definition. If you agree with that premise, when you speak of the cartel system, and forgetting now the refinements that may be developed by an economist or philosopher viewing possibilities of agreement and organization, what is the actual fact with regard to the cartel system? What is it?

Dr. Kreps. The essence of the cartel system is an agreement among independent producers in a special line of business on some particular item, whether it be such a matter as discounts, or whether it be price, or production. It is the agreement among independent producers, voluntarily arrived at, that is the essence of the cartel system.

The Chairman. It may begin with a simple subject such as discounts, of which you speak?

Dr. Kreps. Correct.

The Chairman. And it may extend to what degree?

Dr. Kreps. To almost every phase of business operation. I shall submit some exhibits which will indicate the wide extent to which cartel agreements between independent producers are in existence at the present time.

The Chairman. And when these agreements are made to a very wide extent among independent producers, what is the result with respect to what we call competition, for example?

Dr. Kreps. Competition is mitigated.

The Chairman. Or would you go so far as to say eliminated?

Dr. Kreps. No; because competition is a very stubborn phenomenon. If you agree on, we will say, a price, then there are other methods of competition that enter into the picture.

If you agree on production, then they do something with markets and go into other lines of enterprise. They attempt to mitigate the rigors of competition. Therefore cartels, as I have just indicated, tend to be born particularly in periods of distress.

Mr. Ballinger. Price competition may be eliminated, may it not, Dr. Kreps?

Dr. Kreps. Formally, yes. Practically, as you know, no transaction is merely a transaction in price; it is a transaction in terms of delivery, discounts, and a host of other things. There have been exercised abroad all the ingenious devices with which we are familiar here for getting around the formal quoted price.

Senator King. The term "cartel," then, is rather fluid and flexible in its nature.

Dr. Kreps. Yes.

Mr. Scoll. Dr. Kreps, do you wish to offer the chart now?

Dr. Kreps. Yes, I would like to offer this chart for the record.

Mr. Scoll. I would like to offer the chart showing cartel types.

The Chairman. It may be received.

(The chart referred to was, marked "Exhibit No. 2077" and is included in the appendix on p. 13366.)

Dr. KREPS. In terms of their operations, then, cartels show nearly every variation in scope from local to national and international, from relatively simple control over specified trade practices to detailed administrative control over every phase of modern business operations. About the simplest and certainly the most commendable type of cartel, if indeed it be a cartel, is that established to secure uniformity in the terms of sale.

"Term fixing cartels," according to Dr. Herbert von Beckerath in his book on Modern Industrial Organization (I might add parenthetically that Dr. von Beckerath is a German scholar who has written a great deal on cartels and studied them for about 40 years. He is now in this country at Duke University),——

Term fixing cartels regulate sales terms, that is, conditions of delivery with regard to terms of payment, including discounts for early payment; charges on arrears; modes of payment (cash, three months' acceptance, etc., domestic or foreign money); determination and guaranty of allowances on returns; delivery of free goods; and packing.

This type also concerns itself with options (a buyer's right, within a specified term, to place additional orders for the identical kind and amount of goods at the old price), with conditions applicable to the delivery of goods ordered only by quantity and type, and with reservations as to the execution of the individual pieces, for instance, as to the color and design of textiles.

If term fixing cartels are indeed cartels, then the term includes even such agreements as are embodied in American trade practice conference codes.

Somewhat more sophisticated is the price fixing cartel which regulates sales prices, either by open price lists or by uniform cost accounting systems, in which the cost elements, such as the price of raw materials, wages, the allocation for overhead and the gross profit margin are not only uniform but determined and revised for the members by the association or cartel.

Price-fixing cartels give governmental and other purchasers the headaches of identical bids. Needless to say, such headaches are unnecessary, for when cartels become a little more clever they make their own allocation by dividing customers and sales territories.

One of the interesting devices here used is the bid depository.

Senator KING. You mean here in your discussion.

Dr. KREPS. Yes; not in the United States. My discussion applies to cartels abroad, completely.

In regulating the bidding on proposed contracts, individual contractors make known their proposals to competitors through a cartel information service, or by a direct exchange. By rotating low bids, by complementary bids, and the like, the contract is made to go to the producer nominated by the cartel to fill the order.

The CHAIRMAN. That has the effect of maintaining price, does it not, above what it might otherwise be if the cartel agreement had not been made?

Dr. KREPS. Sometimes above; sometimes, Senator, in periods of prosperity, below. There is that stabilizing influence which we will show later on prices.

The CHAIRMAN. Then are we to understand from your study that you find that a bid depository system may result in lower prices to consumers?

Dr. KREPS. Due to inertia, they tend to maintain a price after an independent producer or a competitive producer would have raised the price. It isn't very long, I will admit that, but it does exist.

The VICE CHAIRMAN. What motive actuates them in these two different determinations?

Dr. KREPS. They frequently form this sort of bid depository as a protection against the lying buyer.

The VICE CHAIRMAN. Against what kind of a buyer?

Dr. KREPS. The lying buyer.

The VICE CHAIRMAN. You mean they are going to cut out everybody that lies and won't let them buy at all?

Dr. KREPS. In certain periods, at any rate, buyers tend not only to shop around, but really to misrepresent the conditions under which they can get an article from somebody else.

The VICE CHAIRMAN. You mean a buyer actually tries to get it at the cheapest price he can buy it?

Dr. KREPS. Yes, that is true.

The CHAIRMAN. By saying to one seller, "Such-and-such a company is willing to sell at such a price. Can you beat that price?"

Dr. KREPS. That is right.

The CHAIRMAN. And this report may sometimes not be altogether accurate?

Dr. KREPS. That is correct.

The VICE CHAIRMAN. And you only then permit people whose statements are absolutely accurate to come under this arrangement?

Dr. KREPS. Under this sort of arrangement you are sure what your competitor is doing.

Senator KING. As I understand, you are describing the operations of the so-called cartel system abroad, not in the United States.

Dr. KREPS. Yes.

Senator KING. It has no relevancy, then, to conditions here.

Dr. KREPS. With that I would not agree.

Senator KING. Except by analogy, perhaps.

Dr. KREPS. I understand that the bid depository is not uncommon, particularly in the building field in the United States.

The VICE CHAIRMAN. You state under this arrangement you are sure of what your competitor is doing.

Dr. KREPS. In that way you know that the buyer was not offered a particular article at, say, the low price or under the competitive conditions which he stated. It is a way of protecting yourself against bargaining exploitation.

The VICE CHAIRMAN. That is the chief objective of the cartel arrangement, to protect people who are caught by statements on the part of the buyer?

Dr. KREPS. No, that isn't the chief objective. The chief objective is to protect the industry, particularly in a period of distress, from what they regard as the excessive rigors of competition.

The VICE CHAIRMAN. Basing their judgment on when the competition gets rigorous?

Dr. KREPS. Yes.

The VICE CHAIRMAN. That is a good arrangement.

Dr. KREPS. A variant of the customer-dividing cartel is the zone cartel which allots all buyers within a certain region to an individual or a group of producers. Zone cartels within national markets are found for commodities with a limited technical or economic shipping range——

The CHAIRMAN. That is more commonly known as a division of territory, is it not?

Dr. KREPS. Correct—cement, brick, sand and gravel, and so forth.

The CHAIRMAN. Whereby all competitors except one or two agree not to sell their products in a certain area but to leave that area for exploitation, or perhaps I had better say development, by those to whom the area was assigned.

Dr. KREPS. Right. Control of output represents even more extensive interference with individual business operations, for then each cartel member engages not to produce substantially more than his present share in the total output of the industry, which share is usually determined according to sample years, or on the basis of relative productive capacities or sales.

The CHAIRMAN. That is what we call limitation on production.

Dr. KREPS. Correct.

The VICE CHAIRMAN. Do you control expansion of the instrumentalities of production?

Dr. KREPS. Yes, there are cartels that do that, that will forbid new plants to be established, or new plantings. I shall submit a cartel agreement in which such an arrangement is present.

The CHAIRMAN. How characteristic of the cartel movement is this limitation of production?

Senator KING. You are still speaking of abroad?

Dr. KREPS. Yes. We are now getting to the essence of the cartel movement. Cartels rarely stay within the limits of trade-practice agreements. They quickly become price-fixing cartels, and that doesn't work well. They implement their arrangements with production limitation cartels. When that doesn't work any too well they begin to limit sales, and as a matter of fact go on beyond that.

The VICE CHAIRMAN. What is the difference between this and an ordinary trust combination, a combination in restraint of trade where people who are interested in production get together to try to hold prices where they have profit?

Dr. KREPS. That is what we are examining.

The VICE CHAIRMAN. I mean that is what it is. Isn't that the thing we are examining?

Dr. KREPS. I would be interested to hear what Representative Sumners would have to say on that on Friday after we have presented our cartel story in its entirety.

The CHAIRMAN. What do you say about it now?

The VICE CHAIRMAN. I was trying to get right down to this thing. You know exactly what this thing is, and let's get to it.

Senator KING. As I understand, Dr. Kreps was addressing himself to the cartel system abroad, and I expected when he completed that he might elucidate the cartels at home or show their analogy.

Dr. KREPS. We have a nongovernmental witness, Dr. Clair Wilcox, who will point out certain similarities to cartels in the industrial experience of this country.[1]

The CHAIRMAN. Isn't the answer to Judge Sumners' question a very simple single word, "none"? There is no difference between the manifestations of the cartel system which you have described and the or ry practices of the conspiracy in restraint of trade as generally bel ed to be prohibited by the Sherman antitrust law.

[1] Dr. Wilcox's testimony appears infra, pp. 13310-13347.

Dr. KREPS. I agree with that, but——

The CHAIRMAN (interposing). You are testifying and we wanted your opinion. Does that answer your question, Judge Sumners?

The VICE CHAIRMAN. I guess I sort of thought what we were talking about was a camouflage and not the cartel yet.

Mr. BALLINGER. There is a close similarity, too, between the cartel and some of the N. R. A. codes, perhaps.

Dr. KREPS. Yes.

Now to obtain a really effective regulation of output, producers sometimes establish central sales offices which on occasion may have a legal structure different from that of the cartel. This type of cartel with a common centralized sales organization is called a syndicate. To centralize sales obviously requires an interchangeable, standardized product. So that customers may get their wares from their favored producer, uniform delivered prices are quoted. Basing points are established.

To quote Dr. von Beckerath on page 215 of his work on Modern Industrial Organization:

> Freights for the deliveries from all works are charged from the cartel freight base instead of from the actual point of delivery. The so-called "Pittsburgh plus plan" of the cooperating United States iron combines was based on this idea.

The CHAIRMAN. Do you take it that Dr. von Beckerath is expressing the opinion that the United States iron combines adopted a European idea of economics?

Dr. KREPS. I think rather in writing this book, which he wrote in Germany, he saw in the Pittsburgh plus system an embodiment of a familiar device, the cartel.

The CHAIRMAN. Which was the first in time, the European manifestation or the manifestation which we call Pittsburgh plus?

Dr. KREPS. So far as the iron industry is concerned and so far as our records are concerned, the Pittsburgh plus system was first. There were cartels in Europe in other industries, as I shall indicate in a moment, somewhat earlier than the period in which the Pittsburgh plus system originated.

The CHAIRMAN. I wasn't referring so much to the iron industry as I was to the use of this method of charging freight from the cartel base. Now was that plan used in any other industry in Europe before it was used here in the iron industry?

Dr. KREPS. I don't know.

To make sure that individual producers will stick to their quotas, profit cartels, that is, pools, are established. Those making excess deliveries are penalized, the profits on such business going to those unable to fill their quota. But most complicated of all usually are the international cartels representing agreements between organized groups of firms or cartels.

In essence they are supercartels of cartels (Generalkartelle) or cartels of combines. Frequently they cover not only one but a number of products (Mantelkartelle). They in turn can be classified in the same way that national cartels have just been divided, into (1) trade practice cartels (2) price cartels (3) territorial cartels (4) production cartels, and (5) sales cartels or syndicates.

In a strict sense only the last three are cartels, the first two types being loose associations usually depending for enforcement on mutual

watchfulness of members rather than on penalty arrangements applied by an administrative cartel officer or office.

The VICE CHAIRMAN. Do you deal with how they discipline a member?

Dr. KREPS. I will submit later an agreement which states in detail how a member is disciplined.[1]

The CHAIRMAN. Am I to understand that the international cartel as you now describe it is an organization whereby large cartels operating in certain nations enter into an agreement whereby so far as world trade is concerned they undertake first to divide territory, second to limit or control production, and third to manage sales or distribution of the products?

Dr. KREPS. Correct.

The CHAIRMAN. And that is done from the top?

Dr. KREPS. Yes.

The CHAIRMAN. And it amounts to a rule imposed by those who manage the cartel upon all who endeavor to engage in that business?

Dr. KREPS. Correct.

Senator KING. Was there any cartel between the German producers before and immediately following the war with the producers of similar commodities in Sweden or Great Britain or France?

Dr. KREPS. Yes.

Senator KING. Or Italy?

Dr. KREPS. Yes.

Senator KING. You will discuss that, will you?

Dr. KREPS. Yes.

Senator KING. Who took the lead in the formulation and execution of any such plan?

Dr. KREPS. The country of leadership varied: It was usually Germany, but the French and the Belgian producers and the British producers on occasion also furnished leadership.

Senator KING. Was it dealing largely with dyes and with chemicals?

Dr. KREPS. No; I have a list here that I shall submit in a moment which will indicate the variety of products covered.[2]

Cartels, while reaching their fullest development in modern Germany, and while most fully documented there, have by no means been unknown in France, England, Italy, Belgium, Poland, and other modern industrialized countries, including the Scandinavian.

In France they are called comptoirs, the oldest being the Comptoir de Longwy established in the iron industry in 1848 and continuing though not without a series of transformations until the present time. In his book entitled Les Syndicats de Producteurs en France, Jacques Lapergue enumerates in addition to the price, territorial, production and sales cartels noted above, export comptoirs and purchasing comptoirs for the joint purchasing of raw materials.

Cartels in France have likewise assumed just as complex forms as in Germany. Instead of the simple Comptoir de Longwy and its successors there have recently come into existence a number of vertical selling organizations of a regional or local character, handling a wide range of iron and steel products of a number of concerns, and generally controlled by them.

[1] See "Exhibit No. 2080," appendix, p. 13369.
[2] See "Exhibit No. 2079," appendix, p. 13368.

Thus there is the "Longovica," handling not only the export trade of iron and steel but also tubes and screws and bolts, rolled products and machinery; the "Nortrilor," handling for export iron ore, iron and steel bars, tubes, slags, and fire bricks; the "Columeta," handling the products of the two Luxembourg combines, the "Arbed" and the Societe Metallurgique des Terres-Rouges. The Comptoir Siderurgique, revived in 1925, is now the most important association in the French steel industry, handling until recently the sales or administration for the international rail cartel, the Continental steel entente, the machine-wire cartel, and the recently organized domestic cartel for beams and ingots, blooms, and so forth.

The VICE CHAIRMAN. Do you intend to discuss at any time the general governmental policy?

Dr. KREPS. I include an agreement here among governments on cartels.[1]

The VICE CHAIRMAN. The governments themselves?

Dr. KREPS. Yes.

The VICE CHAIRMAN. In these countries where these cartels operate, do they have any law or public policy with reference to what we know as activities in restraint of trade?

Dr. KREPS. Some do and some do not.

The VICE CHAIRMAN. Do those that do have make an exception in behalf of these cartels?

Dr. KREPS. Sometimes. The law is extremely varied and complicated, as I shall indicate in a moment.

The VICE CHAIRMAN. Let me ask you, then, are there any prosecutions conducted in any of those countries seeking to prevent the character of practice which these cartels engage in?

Dr. KREPS. In some. In Norway, for example, they have rather rigorous price control measures.

The VICE CHAIRMAN. Do they operate under the cartels?

Dr. KREPS. Yes.

The VICE CHAIRMAN. I hate to ask so many questions, but one other question. The prices which the organizations belonging to these cartels may charge are to some degree supervised or looked over by a governmental agency before those prices are permitted to be put into effect?

Dr. KREPS. In some instances in some countries.

The VICE CHAIRMAN. To what degree is that general among the countries where cartels operate?

Dr. KREPS. At the present time?

The VICE CHAIRMAN. I don't mean since the war, but prior to the war.[2]

Dr. KREPS. Prior to the World War it was only true in Germany in the potash industry. Other places the cartel agreement was regarded as valid and enforceable without supervision.

The VICE CHAIRMAN. And no general blanket legislative or governmental restraint or control which operated over the whole organization?

Dr. KREPS. Usually not.

The VICE CHAIRMAN. Upon what did they depend? If you discuss this later on I will withdraw the question, but otherwise upon what

[1] "Exhibit No. 2080," appendix, p. 13369.
[2] World War I.

do they depend for restraint upon the power accumulated by those persons who belong to the cartel controlling prices?

Dr. KREPS. They used a variety of devices.

The VICE CHAIRMAN. Do you discuss that in your paper?

Dr. KREPS. Yes; I do.

The VICE CHAIRMAN. Then I will withdraw the question.

CARTELS IN GREAT BRITAIN

Dr. KREPS. Now in England the cartel movement has similarly swept through a large part of industrial enterprise. A recent observer, Dr. Ben W. Lewis, in a pamphlet entitled "Price and Production Control in British Industry," states:

> For more than a century the typical British industrialist has produced whatever and as much as he pleased. Today, as a member in good standing of a "rationalized" industry he is allowed a specific percentage of the total business which his industry has decided to handle during the year (and he will pay into a "pool" if he exceeds his quota and will be compensated if he is "short"); he will consult the industry schedule before pricing his goods and will not deviate therefrom without permission; he will submit his sales contracts to the officials of his industrial association for advance approval and will throw open his books for industry inspection; he will pay a levy to be used by the industry to purchase and destroy "redundant" capacity; and he will deposit with the officers of his association a substantial amount to be forfeited if he is found guilty of noncompliance."

Lewis goes on to say,

> The essential condition making it possible for private industry to inaugurate effective schemes of control has been provided by the Import Duties Act of 1932 and the activities of the Import Duties Advisory Committee under the terms of the act.

The CHAIRMAN. Do you understand that to be a statement that it was law which authorized this arrangement which was described by Dr. Lewis?

Dr. KREPS. No. In one or two instances there have been statutes which really bring about in Great Britain the condition which Dr. Lewis describes, but in general, as will be brought out a little later, free trade in Great Britain meant competition from abroad.

The CHAIRMAN. Let's get this straight. Quoting from Dr. Lewis I find this phrase: "He will consult the industry's schedule before pricing his goods." Now, who makes the industry's schedule?

Dr. KREPS. The association for the industry.

The CHAIRMAN. Does it do it by authority of law?

Dr. KREPS. No.

The CHAIRMAN. Then this whole program which is described by Dr. Lewis so succinctly is a program which is adopted by industry itself.

Dr. KREPS. Correct.

The CHAIRMAN. In other words, it is what has sometimes been called self-government in industry?

Dr. KREPS. There are similarities between this movement and the self-government in industry movement.

The CHAIRMAN. This is a plan of production, pricing, and distribution which is made effective by those who are interested in the production and sale without any part being played in the formulation of that plan by those who are primarily interested in purchasing.

Dr. KREPS. That is usually correct. There are exceptions.

The CHAIRMAN. And it is not a Government-sponsored plan?

Dr. KREPS. No, but the Government does not oppose it.

The CHAIRMAN. Yes, sometimes because the Government doesn't know what is going on, maybe.

Dr. KREPS. And sometimes because the management of industry and the management of Government are almost in the same hands.

The CHAIRMAN. Now, then, what about this Import Duties Act of 1932, to which Dr. Lewis refers? Have you examined that law?

Dr. KREPS. Yes.

The CHAIRMAN. In what way does that operate?

Dr. KREPS. That operates, of course, in particular industries, and in those industries——

The CHAIRMAN (interposing). I haven't made my question clear. Dr. Lewis said the essential condition making it possible for private industry to organize these schemes was provided by this act of 1932. Do you know how? What was the essential condition?

Dr. KREPS. Because it kept out foreign competition. Prior to that time, British official policy looked upon these agreements as being substantially unenforceable, as not lasting very long because there was always a chance for competition to come in from abroad.

The CHAIRMAN. There used to be a phrase in this country years ago when I was first beginning to take an interest in things that were going on, the phrase was the tariff was the mother of the trusts. Is that about the same as Dr. Lewis states?

Dr. KREPS. That is essentially the idea.

Senator KING. Isn't it a fact that the Board of Trade, which is not only an industrial but a quasi public organization in Great Britian, operates in connection with the Cabinet?

Dr. KREPS. Yes.

Senator KING. So that the Government itself, through p oper instrumentalities, keeps in contact with the business organizations and determines in a way largely the policies which are pursued by business? That is to say, my recollection is, and my mind is a little vague about that, that there is a member of the Cabinet that contacts business and has to do with business, watching the interests of the consumer as well as watching the interest of those who are seeking to extend the trade of the Government with the Empire and the lands beyond the boundaries of the Empire.

Dr. KREPS. There is no formal supervision. You are quite right that there is an intimate relationship between members of government and ruling members of industry. That intimate relationship undoubtedly results in a give and take, in some modification of industry policy at some times, but we have no formal evidence on that point.

Senator KING. My recollection is there was sort of a liaison officer with considerable authority between the Government per se and industry.

Dr. KREPS. You mean definitely with respect to these agreements?

Senator KING. With respect to industry generally and with respect, also, to prices, and particularly with respect to seeking markets abroad and to watch the imports with a view to determining whether or not Great Britain having departed in part from a free-trade policy, additional tariff rates would be imposed.

Dr. KREPS. There is no doubt that British Government, like all governments, has an extensive organization servicing industry. On

the other hand, there was no formal supervision or control or even registration of these agreements.

Senator King. I wasn't speaking so much about agreements as I was generally the supervision of industry and a liaison officer between the authorities which govern the Empire, the party in power, and industry with a view to determining whether the policies of industry are compatible with policies of the Empire, particularly to Great Britain.

Dr. Kreps. Yes.

(Representative Sumners assumed the Chair.)

The Vice Chairman. The explanation which you have just made, the amplification of the statement you made a moment ago, that often it is so that the control of Government and control of industry is in the same hands, practically the same hands—I believe you made such a statement.

Dr. Kreps. Yes.

Senator King. There is no doubt when the MacDonald government came into power in Great Britain, they materially modified the internal policies with respect to trade and commerce as well as the external policies, much to the regret of the conservatists.

Dr. Kreps. Yes.

The Vice Chairman. When you speak of government and industry being in the same hands, does that mean the legislative and policy-fixing agency of the Government is related, or some bureau in the Government that really has exercise of governmental power in reference to the matter?

Dr. Kreps. It usually means that the same group with the same pool of knowledge and the same ideas on public policy, and the same families, even, tend to hold offices, in one case in industry and in the other case in government. There is intellectual interchange. For example, in Great Britain Sir Josiah Stamp, a government clerk and a professor, became head of the British Railways. All I meant to imply by "same" was not that the same person held two offices, but that there was a good basic understanding between the leadership of government and the leadership of industry.

The Vice Chairman. From your observation of the working of that arrangement where government and industry are largely in the same hands, is industry persuaded to modify its policy in the interest of government?

Dr. Kreps. Yes.

The Vice Chairman. The Government modifies the policy in the interest of industry.

Dr. Kreps. Frequently.

The Vice Chairman. Each way about.

Dr. Kreps. Yes. There is give and take. There is a certain code, may I say, particularly in Great Britain. There is a feeling that certain things aren't done by men in industry and by men in government, according to a rather high code of ethics, of idealism, and of trusteeship. That code commands the allegiance both of men in industry and men in government. Public policy as well as industrial policy are debated and discussed in terms of such a code. In that discussion, modifications both of industry policy or proposed industry policy and of proposed governmental policy take place.

The Vice Chairman. Pardon me for inquiring here, because this is the one new aspect that has come to the surface here, and I think is very interesting—it is to me, and I believe to my colleagues. Those discussions I assume are to a large degree informal between the heads of industry and people in responsibility in the Government.

Dr. Kreps. Naturally.

The Vice Chairman. And then you mean there is a sort of feeling of loyalty and duty and patriotism as well as, I assume, some coercion of public opinion, that the people who engage in industry ought not by reason of power acquired by these cartels, attempt to be extortionate in their prices or unreasonable in their restraint upon individuals.

Dr. Kreps. Yes. In other words, I would phrase it that their idea of what is extortionate and their idea of what is unreasonable is likely to be determined by this code of a gentleman, which Englishmen adhere to.

Senator King. They have a system of taxation, if the profits are very large the Government takes them.

Dr. Kreps. Yes.

The Vice Chairman. Does that to any degree change the public policy? In other words, do they feel that these industries are tax gatherers, and the price they charge doesn't make much difference as long as the public stands for it?

Dr. Kreps. I don't think that attitude is common.

The Vice Chairman. I think I understand what you are saying, and it is a very interesting thing.

Senator King. Our Government, as I understand, takes an interest in our domestic as well as in our foreign trade and commerce. For instance, Presidents have frequently recommended lowering the tariffs and other Presidents have recommended increasing the tariffs, and the heads of the various departments even now, take the agricultural department, spend no little time in making speeches throughout the country advocating certain governmental policies and bring pressure to bear, more or less important, upon Congress to secure legislation in the form of recommendations to the executive department of the Government. Isn't that true?

Dr. Kreps. I understand it is.

Senator King. I know it is.

Dr. Kreps. At present the iron and steel industry is completely controlled by a supercartel, a federated organization of some 35 price-fixing and quota associations, together with probably 40 additional informal price and output groups, covering practically every iron and steel material and product in the British Isles. Agreements are enforced by such devices as the deposit of prepaid fines and substantial "loyalty discounts" not given to recalcitrants or outsiders.

Other products characterized by effective cartel controls are tin plate, galvanized sheets, sanitary fire-clay products, cables, light bulbs, household equipment, radios, generating and transmitting equipment, matches, soap, glycerin, white lead, various metal products such as fittings, tools, saws, files, drills, cutlery, and cement. In the last-named industry there is a quota-and-price association which quotes delivered prices on a common basis and enforces them by penalty deposits. Quotas are based on past performance and operated through the mechanism of a "put and take" pool. In the

lead oxide industry a similar compensatory "put and take" arrangement is operated, the specific amounts being calculated on the basis of the particular markets in which the shortage or excess occurs.

In Italy cartelization developed after the war in the iron and steel industry, in shipbuilding, in cement, cotton, certain chemicals, and paper. Cartels were forced upon the marble quarries of Carrera, the rolling mills, and the sulfur mines.

The VICE CHAIRMAN. Who forced them, the Government?

Dr. KREPS. The Government.

Belgium has a long cartel history. Thus one regional association in the coal industry (Comité houiller du Centre) was formed as early as 1841, although the formal cartel providing for fixing of prices, joint selling, and indemnification for dumping was not organized until 1896. The coke producers organized a selling comptoir in 1894, agreeing with the Ruhr coke syndicate regarding the division of markets.

Practically every phase of the iron and steel industry was cartelized long before the outbreak of the World War. The cement and plate-glass industries are also strongly controlled. The mechanical window-glass cartel has a joint selling organization for foreign as well as domestic markets, the central bureau billing all shipments direct to buyers.

GROWTH OF CARTELS IN GERMANY

Dr. KREPS. Now, concerning Germany little need be said. In the late seventies various coal cartels were formed in the Ruhr. But a Reichstag cartel investigation in 1906 found that the cartel movement developed gradually and comparatively slowly until 1895. Of the 385 cartels covered by the investigation, a substantial proportion came into being after the turn of the century; the industries most affected being coal mining, iron and steel, chemical, and brickmaking.

It was estimated that, leaving out numerous brickworks, the cartels covered by the investigation comprised about 12,000 industrial establishments. About 200 of the cartels investigated had joint selling organizations. During and after the World War the number of cartels grew with great rapidity.

(Senator O'Mahoney resumed the chair.)

The VICE CHAIRMAN. Did the agency of investigation make any recommendation after it concluded its investigation?

Dr. KREPS. It did.

The VICE CHAIRMAN. Were they favorable or unfavorable?

Dr. KREPS. I would say rather they were puzzled.

The VICE CHAIRMAN. That is nothing new, or old, either.

Representative WILLIAMS. In Germany are there any industries outside of the cartels?

Dr. KREPS. Oh, yes.

Representative WILLIAMS. What percentage are under the cartels?

Dr. KREPS. You mean in 1906, or at the present time?

Representative WILLIAMS. Now. I mean before the last war. What was the normal situation there with reference to the business carried on under the cartel system?

Dr. KREPS. I wouldn't hazard a guess, but suffice it to say that most of the heavy industries, chemicals, machinery products, ceramics, and the like were under cartel control. There were even some cartels in

the wholesale trade, but of course such areas of industry as agriculture, service enterprises, and the like were not cartelized.

Representative WILLIAMS. The factory business commonly known as the industries of that country were under the cartel system?

Dr. KREPS. A large proportion.

Representative WILLIAMS. A great part of that business was conducted in that manner?

Dr. KREPS. Yes.

The VICE CHAIRMAN. Is there any distinction in the scope of permissible operation between production for domestic consumption and that which was either going into foreign trade or competitive with foreign trade?

Dr. KREPS. Yes; they have special cartels dealing with export trades.

The VICE CHAIRMAN. Very often selling at a lower price in the export market.

Dr. KREPS. Yes. Germany, suffice it to say, was the traditional land of cartels.

The uninitiated often believe that without governmental participation cartels cannot exist. This is, of course, not true. But governmental policy usually determines whether cartel agreements are made matters of public record, or are driven underground. The attitude of governments and their concern with cartels, both in Europe and in the United States, has varied enormously.

The VICE CHAIRMAN. In Germany have they had corrective legislation, waves of threatened opposition and correction frequently in that country with reference to cartels?

Dr. KREPS. They had one.

The VICE CHAIRMAN. When was that?

Dr. KREPS. In 1923; right after the inflation a law was passed significantly called Decree Against Abuses of Economic Power. In the development of that law, however, cartels were not proceeded against.

In general, in Europe cartel agreements are deemed valid and enforceable, subject to the usual processes of litigation and adjudication. I might add here that cartel agreements usually provide that no litigation is to occur. They settle their own disputes.

Mr. BALLINGER. In other words, in Germany after they passed the Decree Against Abuses of Economic Power, they did nothing about concentrated economic power.

Dr. KREPS. Correct. As a matter of fact, they even went in the other direction.

Most detailed are the regulations in Germany, a summary of which is given in this exhibit.

Mr. SCOLL. I would like to offer at this time an Excerpt of portion of Table of Contents from "The Legal Position of Cartels and Concerns in Europe," by Dr. Heinrich Friedlander.

The CHAIRMAN. Without objection, the exhibit may be received.

(The document referred to was marked "Exhibit No. 2078" and is included in the appendix on p. 13366.)

The CHAIRMAN. Do you have any copies of this?

Dr. KREPS. There are some typewritten copies. I am not sure where they are at present.

Representative WILLIAMS. I notice a statement here that the agreements are determined valid and enforceable. Who enforces them?

Dr. KREPS. As I said, if they want to go to a court of law, the court of law in some instances will enforce the agreement, but the cartel agreements usually provide that cases are not to be taken to a court of law. In other words, they establish their own arbitral tribunal.

Representative WILLIAMS. They are given, then, a kind of quasi-governmental position.

Dr. KREPS. They are given the same position that contracts for purchase and delivery and sale in this country have had. When you buy an automobile, or what have you, that contract is enforceable in the courts.

Representative WILLIAMS. I got the impression a while ago that cartels as an organization enforced their own agreements by means of fines, penalties, and so on.

Dr. KREPS. Yes; that is correct.

The VICE CHAIRMAN. What is the procedure—if you discuss it in the paper or in your remarks, I withdraw it—but what is the procedure under which a new activity may get into an established market?

Dr. KREPS. Sometimes the only procedure is that of breaking the cartel such as when a new source of supply comes in. When a new producer wants to produce something, he breaks the price or disregards the cartel obligation, maybe disregards the cartel rule. If he is strong enough, ultimately the cartel is compelled to reorganize and include him.

The VICE CHAIRMAN. When he does fall into the power of the cartel, does the cartel then have in its arrangement some power to assemble itself, rather to bring its assembled economic strength to bear toward crushing him? Is that sort of thing permitted? Is that sort of thing legislated against in these governments?

Dr. KREPS. In some cases it is. In some instances it is not. In other words, such occurrences are regarded as part of the general business picture.

The VICE CHAIRMAN. Let's get that a little clearer. Do you discuss it in your paper?

Dr. KREPS. I do not.

The VICE CHAIRMAN. Well, then, let's take a little time, if you don't mind. Under the operation of a country that is committed to the plan of the cartel, practically speaking, it would seem to me to be almost impossible for any new industry to enter the field without the consent of those already engaged. Those already engaged would not be disposed to accept a new competitor in the field, that they felt they were pretty fairly taken care of.

Dr. KREPS. The last part of your statement I agree with, that they are not disposed to accept a new competitor. They are sometimes compelled to.

The VICE CHAIRMAN. But that compulsion must come from a power and economic strength and business ability that is somewhere in the neighborhood equal to the aggregate of the members of the cartel, doesn't it? That is a pretty strong statement, but——

Dr. KREPS (interposing). I was going to say, take, for example, a price-fixing cartel. When a member, due to one reason or other, is

dissatisfied and feels that he can get a larger market by quoting at a lower price, he may not have an economic power equal to that of the cartel, but none the less be rather effective in breaking the price cartel and in breaking the price. The result is that the cartel, if it doesn't have effective measures of economic reprisal, may have to call a meeting of all the members of the industry and try to reason together.

The CHAIRMAN. Ordinarily doesn't a cartel have that means of reprisal on its hands by meeting the price reduction or even going further?

Dr. KREPS. Yes.

The CHAIRMAN. And thereby driving this rather venturesome person out of business completely?

Dr. KREPS. Yes.

The CHAIRMAN. In other words, what we are dealing with here is the relationship between organized business and organized society.

Dr. KREPS. Yes.

The CHAIRMAN. And the extent to which business organizes without the authority of Government, and the effect of that organization upon individual flesh-and-blood persons.

Dr. KREPS. Exactly.

The VICE CHAIRMAN. If I may ask just a couple of more questions, I think it is pretty clear, it seems to me rather important, in this country, which I can visualize more easily than I can Germany, if a new person wanted to enter competition with established industry in this country, and those established industries were organized, and the resources subject to some central control, and that industry was not invited and not welcome, had no governmental agency to which he could appeal, such as ourselves, that deal with unfair trade practice in our trust groups, I don't see how he would get in at all, because if he brought a suit in the courts claiming a violation of his right to enter, and that sort of thing, why, the courts would say, "We don't entertain that suit; they are doing what they have a right to do," I don't see how he could get in.

Getting right down to it, it seems to me that this cartel arrangement is no protection to the individual seeking to enter into competition with established persons who constitute the cartel. It seems to me that whatever your theory might be, as a matter of fact, he wouldn't have a look-in.

Dr. KREPS. It depends on the industry and depends on the time and the occasion. If he has a new process or a patent or a low-cost measure, he can break in.

The VICE CHAIRMAN. I am not having in mind somebody who has patented something who shuts everybody else out.

Dr. KREPS. It is difficult, but not impossible.

Mr. BALLINGER. You don't know of any cartel broken by the operation of an independent enterprise or outside the cartel? Most cartels break down by sizable revolt from the inside.

Dr. KREPS. Usually, yes.

Mr. BALLINGER. Do you know of any case where a person with a better manufacturing process, a better idea, was able to come along and smash a cartel?

Dr. KREPS. Yes, there have been a number of instances.

Mr. BALLINGER. Will you list some of those?

Dr. Kreps. I did not list them, but there have been a number, particularly in the chemical industry.

Mr. Ballinger. You mean outside the country that is practicing cartels?

Dr. Kreps. No, inside the country that had a cartel. Usually some new device, some new patent or new method of production enabled this outsider to break in.

The Vice Chairman. And the people who had machinery or had patents which did not permit them to engage in competition with a new process had to yield because of the new process.

Dr. Kreps. That is right. Often patent pools were established as a result.

The Vice Chairman. My question wasn't directed to a situation where a person entering the field entered with a new gun.

Dr. Kreps. Of course, there are disruptive tendencies in the cartel itself; in other words, opposition builds up within the cartel, disagreement concerning quotas, disagreement with respect to territory or sales, all the areas of disagreement that are likely to occur when you have a group of men together, each, after all, seeking to maximize his own gain.

Senator King. Isn't it a fact that following the World War, notwithstanding the cartels were very strong, especially in the dye and chemical industry, in the utilization of coal and in the development of all of the coal products, there were a very large number of independent organizations started up in competition with existing cartel activities?

Dr. Kreps. Peculiarly so where you have international cartels which, of course, broke up almost completely during the World War and have broken up again now.

Senator King. And isn't it true that during the last 5 or 6 years, notwithstanding the dominating power of Mr. Hitler, there has been a very great increase in the number of manufacturing and industrial activities within Germany?

Dr. Kreps. I don't know.

Senator King. Or companies?

Dr. Kreps. I don't know. Cartels and economic combines, as you notice from this exhibit, were not given a special basic legal status there until the decree against the abuse of economic power promulgated in 1923. In that decree a cartel court was established as a special tribunal attached to the Reichswirtschaftsgericht. Unlike ordinary courts of law, its associates include representatives of different economic interests and an expert representing the public. The Minister of Economics was given the power of intervening in cases in which the public interest was found to be endangered. So far as detail is concerned, legislation and court decisions in other countries afford little of outstanding interest though much of labyrinthine complexity.

The Chairman. What was the extent of the power of intervention granted to the Minister of Economics?

Dr. Kreps. He could disband the cartel.

The Chairman. By his own decree?

Dr. Kreps. By a finding of the court.

The Chairman. He could intervene as one would intervene in a suit of law and present an argument to the court?

Dr. Kreps. Correct.

The CHAIRMAN. It would be the court that would issue the decree of dissolution?

Dr. KREPS. Correct.

Senator KING. In other words, they had a judicial body and this person to whom the Senator has just referred was rather a prosecuting attorney who would assemble the evidence against the practices of the cartel and this court would determine whether or not it should be dissolved or modifications should be inaugurated in connection with its activities.

Dr. KREPS. Yes; our last witness in this hearing is an expert who served in Germany before this court. He will discuss a number of the interesting problems that came up.[1] The cartel court would meet and make its decision and this decision would then be referred to the Supreme Court, sometimes with reversal, and, indeed, all the other accompaniments of appeal with which we are familiar in this country.

Senator KING. So that judicial review, then, was exercised in regard to these agreements.

Dr. KREPS. Yes.

Senator KING. That is, machinery was provided for judicial determination of the validity or invalidity of these respective agreements.

Dr. KREPS. Of portions of these agreements. I might say one interesting episode they argued about was what is a cartel, the lower court holding that a certain arrangement was not a cartel, and the upper court holding that it was a cartel. That litigation went on for some little time.

Mr. BALLINGER. Were any cartels dissolved?

Dr. KREPS. My recollection is none.

Mr. BALLINGER. In other words, there was great agitation about the abuse of cartels and then they gave the Minister the power to intervene in the public interest but no cartel was dissolved?

Dr. KREPS. No; there was section 4 which was designed to be the section when the law was passed that would protect the public interest, but the inflation period passed. In 1924 stabilization came into the picture, and at once sections 8 and 9 of the law became prominent, which were sections dealing with the enforcement of the cartel decree upon cartel members and the difficulties that came about when they tried to enforce upon a cartel member the provisions of the cartel agreement.

Senator KING. The inflation in Germany following the war, in 1923, '24, '25, and '26, (I happened to be in Germany on those occasions) disrupted the entire economic structure, did it not, and made it almost impossible to determine just what were prices? Prices in the morning would be much different than when night came, and the next day the prices again would be changed so there was no static condition in regard to prices.

Dr. KREPS. That is correct.

The VICE CHAIRMAN. Would this proceeding to which you have just referred, the tribunal, or whatever it is, before which the hearing is had, have any jurisdiction over price?

Dr. KREPS. Yes.

The VICE CHAIRMAN. Price and practices?

Dr. KREPS. That is correct.

[1] See p. 13347, infra.

The VICE CHAIRMAN. And they were subject to modification by the judgment of the court?

Dr. KREPS. Correct.

The VICE CHAIRMAN. So it was not only dissolution, but it was cartel practices generally that were subject to public control?

Dr. KREPS. Exactly.

The VICE CHAIRMAN. Is there any Government where it is required that prices be filed with any governmental agency before they become effective, anything similar to our transportation rates that are required to be filed?

Dr. KREPS. I think the closest approach, Mr. Congressman, to an answer to your question is afforded by the experience of Norway, in which the law requires compulsory registration of cartels. Norway initiated this legislation in 1921 and amplified it by the law of 1926 which has as its main objective a generally continuous control of prices.

Now all combines and large companies in cartels that are in a position to exert an important influence on the prices of goods or services are required, upon notification, to register with the office of control which was created by the law and invested with the power to require and check any information it may deem desirable. Actual dissolution of cartels and other measures of enforcement are entrusted to a council of control consisting of a president and four members and assisted in matters of local or regional importance by communal committees of control, successors to the former local price commissions. A similar law has been adopted by several other small European countries.

The VICE CHAIRMAN. But it is not required in any of these countries with which you are familiar that there shall be filed in advance of their going into effect any contemplated modification of prices?

Dr. KREPS. Not that I am familiar with.

COMPULSORY CARTELIZATION IN FRANCE

Dr. KREPS. There is another development in all this intricacy of cartel legislation which is important, and that is the growing tendency toward compulsory cartelization, not only in Germany and Italy but also in France and even in England. The bill passed by the Chambre des Deputés in France in 1935 is a case in point. According to Karl Pribram in his book on cartel problems:

> The bill provides that, if a group of employers representing, as a rule, two-thirds of all concerns and three-quarters of the total sales of the industry, during the preceding year has adopted an agreement for the purpose of regulating trade conditions for a limited period, such an agreement can be made binding upon all members of the industry by governmental decree. The agreement may include a wide variety of measures for adapting production to the situation of the market, at home and abroad (including reduction of output, hours of work, and inventories; restriction of production to existing plants; conclusion of collective labor agreements; fixing of minimum standards of quality; assessment of contributions; and flotations of loans).
>
> In order to avoid far-reaching governmental interference with economic life, a special "Arbitration Committee" composed of the heads of independent industrial, commercial, and financial organizations and institutions (including the Governor of the Bank of France and the General Secretary of the Trade Union Federation) is to be charged with the task of examining the merits of its findings to the government. Unless the Committee's proposal is strictly affirmative, the government is not to be empowered to declare the agreement binding. Control of the execution of the agreement is placed with the appropriate executive department of the government.

The VICE CHAIRMAN. Do you know in a general way the reason assigned establishing the necessity for the policy?

Dr. KREPS. For compulsory cartelization?

The VICE CHAIRMAN. I am just speaking now of France; they passed a law for compulsory cartelization. Do you know and can you state briefly the reasons which actuated or promoted that legislation?

Dr. KREPS. Yes. In the brief which was filed with this bill—I forget the exact technical name for it—they cited the arguments which I have already elaborated this morning: The necessity for French industry to protect itself against cartels in other countries, the necessity for French industry to protect itself during periods of excessive competition from the risks inherent in large investment when price cutting is likely to know no lower limit.

The VICE CHAIRMAN. Was there any claim in support of that bill that possibly a few of the well financed and stronger industries were about to drive out smaller industries that could not compete with them in the scramble for a market?

Dr. KREPS. I don't know, but possibly in the debates that point may have been raised. Of course in the brief for the bill as such it would stand to reason that point would be——

The VICE CHAIRMAN (interposing). That is not included among the reasons asking for the bill?

Dr. KREPS. No.

The CHAIRMAN. This first setence is very interesting in your quotation from Mr. Pribram:

> The bill provides that if a group of employers representing, as a rule, two-thirds of all concerns and three-quarters of the total sales of the industry, during the preceding year has adopted an agreement for the purpose of regulating trade conditions for a limited period, such an agreement can be made binding upon all members of the industry by governmental decree.

Now what are the circumstances which determine whether or not such a decree is issued and by whom it is issued?

Dr. KREPS. It is issued by the appropriate executive department, that is under the system of administrative law in France, the administrative decree can be issued by a number of departments, depending upon what is affected in the agreement, whether it is labor, conditions of labor, whether prices or discounts, or whatever the situation may be.

The CHAIRMAN. What standards control the acts or guide the acts of the executive department?

Dr. KREPS. You mean are supposed to control?

The CHAIRMAN. Yes, surely.

Dr. KREPS. The standards supposed to control are those which are mentioned in the prelude to the bill, namely, to prevent excessive competition, to protect French industry against cartels in other countries, and the like.

The CHAIRMAN. In other words, it would appear from this sentence standing alone that size of itself was the only prerequisite, although it is stated there that the decree can be issued, thereby implying that it could be withheld as well.

Dr. KREPS. Yes, that would be subject to the decision of the arbitration committee.

The CHAIRMAN. Dr. Kreps, it is now after noon and the quorum call has just been rung. Suppose we adjourn at this point.

Representative WILLIAMS. May I ask one question? What is the difference between this French system and our N. R. A.?

Dr. KREPS. Well, if you mean in essence——

Representative WILLIAMS. Yes.

Dr. KREPS. Probably the differences aren't, shall I say, vital.

Representative WILLIAMS. Personally I wasn't able to see any, just by looking at it.

Dr. KREPS. Of course, in detail, in method of enforcement, and method of adjudication and the like, the differences are numerous.

The CHAIRMAN. I thought we might pursue that discussion this afternoon. Before we take a recess, the Chair takes note of the fact that Secretary Morgenthau has written to the chairman notifying him that he has designated Charles L. Kades, special assistant to the General Counsel of the Treasury Department, as alternate to Mr. O'Connell, representative of the Treasury Department upon this committee.

I have also been advised by Mr. Clarence Avildsen, member of the committee, that Mr. Sumner T. Pike has been designated to sit during this hearing. We have had the pleasure of Mr. Pike's presence this morning.

The committee now stands in recess until 2:30.

(Whereupon, at 12:05 p. m., a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 1:45 p. m. upon the expiration of the recess, Senator King presiding.)

Acting Chairman KING. The committee will come to order. Proceed, Dr. Kreps.

THE NUMBER AND SCOPE OF INTERNATIONAL CARTELS

Dr. KREPS. National cartels almost irresistibly grow in most industries into international cartels. For economic forces in modern times cannot be held down within the confines of the political frontiers which the past has handed down to the modern world. Some fragmentary indication of the wide range of enterprise in which prices, production, and/or sales are influenced, if not controlled, by international organizations of businessmen is given in "Exhibit No. 2079."

This exhibit shows as of last year a number of international cartels in the mining industries, metal industries, chemical industries, ceramic industries, electrical industries, textile industries, and certain odd manufacturing enterprises.

Acting Chairman KING. Are there copies for the committee?

Dr. KREPS. There are copies. That is not an exhaustive list. As I will note in a moment, there were over 114 such international cartels before the World War and at the present time nobody knows actually how many are in operation. They change from time to time. This is a sample of some that existed in 1938.

Acting Chairman KING. Those cartels were among European nations exclusively?

Dr. KREPS. Only the European members of such cartels have been noted. There may have been and in some cases we have evidence that there were non-European members, Asiatic, South American,

and North American members, but those have not been noted in that summary.

Acting Chairman KING. Any parties to the cartels residents of the United States?

Dr. KREPS. We have evidence that in some cases such as in the aluminum and electrical industries there were at least branches of American enterprises abroad which served as members or as observers in such cartels.

Acting Chairman KING. Observers or members?

Dr. KREPS. Both.

Acting Chairman KING. To what extent were they active members in the cartel?

Dr. KREPS. That varies with the cartel concerned. In the electrical industry there was a good deal of active participation

Acting Chairman KING. Proceed.

Mr. SCOLL. I would like to offer this for the record.

(The list referred to was marked "Exhibit No. 2079" and is included in the appendix on p. 13368.)

Acting Chairman KING. I presume this was prepared by Mr. Friedlander from sources which he had available in Germany?

Dr. KREPS. Correct.

Acting Chairman KING. He was in Germany when he prepared t ?

Dr. KREPS. No; he had just come over here when he prepared it.

Acting Chairman KING. At whose instance did he prepare this?

Dr. KREPS. At the instance of the committee.

Acting Chairman KING. Recently?

Dr. KREPS. Within 8 months.

Acting Chairman KING. Is he employed by the committee?

Dr. KREPS. No.

Acting Chairman KING. Have you checked the sources from which he claims to have obtained his information to ascertain the accuracy of the same?

Dr. KREPS. Yes; I have. As a matter of fact, many more could be added and many more are quoted in the sources. This is designed to be merely a minimum list of the cartels concerning the existence of which there was no uncertainty.

Acting Chairman KING. For instance, I notice here International Traffic Insurance Association. Where did he obtain the information as to this association?

Dr. KREPS. That is in a document of the United States Department of Commerce entitled "Control of Ocean Freight Rates and Foreign Trade." We did not list the members because we did not know. The existence, however, of the association is known.

Acting Chairman KING. International Tanker Owners Association?

Dr. KREPS. I shall submit the agreement which is contained in this official document which I hold in my hand.

Acting Chairman KING. International Newsprint Association. Was there such a cartel?

Dr KREPS. There is such a cartel, or was before the outbreak of the European war.

Acting Chairman KING. Of recent origin or back many years?

Dr. KREPS. No; there have been cartels of various sorts—local cartels. and then an attempt at a national cartel, and then a break-up

of all cartels—for a long time in the paper and pulp and in the newsprint industries.

Acting Chairman KING. There has been great competition, has there not?

Dr. KREPS. Oh, quite, and of course, as I tried to emphasize this morning, cartels often embrace less than 20 or 30 percent of the total output. It is not necessary, in other words, in order to have a cartel, for the cartel to embrace 100 percent of the output (in fact that rarely occurs), no more than it is necessary to control 100 percent of the output to exert controlling influence in a market.

Acting Chairman KING. Has there ever been a cartel with respect to newsprint that controlled that great industry?

Dr. KREPS. No; not a hundred percent.

International cartels are not new. Many years ago Dr. Robert Liefmann in a monograph on International Cartels, Combines, and Trusts cited 40 that had come into existence prior to 1896; namely, those controlling the production of borax, bicarbonate of ammonia, dyestuffs, muriatic acid, soda, caffeine, lactic sugar, alizarin, chloral-hydrate, oxalic acid, iodine, strontianite, bromides, cyanide of potassium, chromates, phosphates, imitation gold leaf, potter's earth, fertilizers, saline products, dynamite, small-arm ammunitions, rails (for locomotives), tubes, iron bars, gas piping, rolled wire, needles, wooden screws, coke, raw zinc, rolled zinc, bismuth, lead, copper, enameled ware, cement, looking-glass, parchment, thread.

Acting Chairman KING. There has been active competition in all of those commodities to which you have just referred?

Dr. KREPS. Yes; there has been in many of them.

Acting Chairman KING. National and international?

Dr. KREPS. Even though there was an international cartel.

Prior to the World War 114 were known to be in existence, of which 18 were in transportation, 26 in coal, ores and metals, 8 in stoneware and porcelain, 5 in electrical manufacturing, 19 in chemicals, 15 in textiles, 7 in paper, and 16 in miscellaneous industries. Most of these, while disrupted during the World War, were revived in the early twenties together with numerous others.

Acting Chairman KING. Those are largely cartels in Germany, are they not?

Dr. KREPS. Those are international cartels I am speaking of, which means they included at least two countries and in many instances you are quite correct, Germany was one of the members.

Acting Chairman KING. Was Germany not the moving or important factor in bringing about cartels if cartels were developed?

Dr. KREPS. In most instances; yes.

on the whole—

states Dr. von Beckerath, in this volume I have previously cited—

the number (and importance) of cartels and similar organizations in Germany is at least three times as large as it was before the war. The situation is similar in most other industrial countries, including the United States, where export cartels have been legalized, and an increasing number of cartel-like organizations are developing in the domestic market. They are being developed successfully in forms which avoid publicity and prosecution by the governmental boards enforcing the antitrust laws, and they try to keep their activities within such limits as the government is able or willing to permit.

Acting Chairman KING. What knowledge has he of conditions in the United States to generalize in the manner that that statement implies?

Dr. KREPS. He was going on the basis of records of our investigations back in 1900, and before the World War as well as records of the Department of Justice and the Federal Trade Commission in cases that have come before them.

Acting Chairman KING. What is the date of that?

Dr. KREPS. This was published in 1933.

Acting Chairman KING. While he was a resident of Germany?

Dr. KREPS. This was published at the time he came to the United States. The foreword is by Professor Taussig, of Harvard University.

Acting Chairman KING. At whose instance did he prepare this?

Dr. KREPS. This was originally a German book and tries to trace the structure of industrial organization in the various countries of the world, because as I have tried to indicate, economic structures and economic problems have a great deal of similarity in all modern industrial nations. In particular, the cartel structure is a concomitant of modern industrial development and does not confine itself to national lines. So there is a large portion of this book devoted to a discussion of cartel problems under the heading, "Eliminating Collisions Between Plant and Market Requirements."

In the chemical industry not a single year goes by in which our Department of Commerce does not report additional cartel developments. In its most recent report, for example, are found the following statements:

Belgium:

> Existing cartels continued to operate successfully during 1938. The Comptoir General des Fabricants Belges de Superphosphates, Brussels, has been established as a joint sales office for the marketing in Belgium of domestic and French superphosphate. It is reported that the principal members of the organization are the Etablissements Kuhlmann, the Union Chimique Belge, Superphosphate Rosier, cie. des Metaux d'Overpelt-Lommel, the Louvain fertilizer company, and Bataille Freres. The principal purpose of the organization is to establish quotas for each participating firm.

Similarly:

> A price agreement covering chlorine, signed by Danish, British and German firms, fixes a maximum production of chlorine for sale by the Danish company, as well as prices, and is irrevocable until the end of 1940. Another agreement between Danish and German firms likewise sets the maximum production of potashlye by the Danish company, sales prices, terms, etc. All the important companies in the fertilizer trade are joined in a price agreement under the terms of which the parties maintain the prices set by Norsk Hydro, the Nitrate Corporation of Chile, and other suppliers. Sales quotas are fixed.

Again:

> In most chemicals, both imported and domestic, the Swedish market is governed by the same cartels, syndicates, and qutoa arrangements in force in other countries, with no changes in 1938. Prominent among the international cartels operative in Sweden are the Zinc White Cartel, Nitrate Cartel (with which Stockholms Superfosfat Fabrike A. B. has an unofficial working agreement), Soda Cartel, Glauber's Salt Cartel, Chloride of Lime Cartel, Magnesium Sulfate Cartel, and the International Association of Superphosphate Manufacturers. The Swedish Match Co. reports that it maintains marketing agreements with its foreign affiliates and with most of its foreign competitors except the United States.

Or again:

> The International cartel agreement concluded in 1931 between Switzerland, Czecho-Slovakia, France, Germany, Italy, and Sweden for the purpose of regulat-

ing prices, sales, and sales terms in the marketing of sodium chlorate, has been extended from time to time and, upon its expiration at the end of October 1938 was extended for one year.

Cartel restriction schemes are boldly announced in press releases abroad. Thus American consumers of tin are told by the Economist in an article entitled "Tin Under Control" (March 4, 1939):

Few people nowadays are opposed in principle—the Economist is certainly not—to the cooperative adjustment of the supplies of raw materials to the demand for them at a price yielding a reasonable profit to efficient producers.

With that principle there might be a little disagreement until American manufacturers learned that standard tonnages have already been set under the third tin agreement for the period from January 1, 1937 to December 31, 1941 as follows: Bolivia, 46,490 tons; Malaya, 71,904 tons; Netherlands East Indies, 36,330; Nigeria, 10,890; Siam, 18,000; Belgian Congo, 13,200; and French Indo-China, 3,000 tons.

(Senator O'Mahoney assumed the Chair.)

Dr. KREPS. These tonnages cause American demand to be of little influence. They implement a high-price policy which not only is causing the proportion of the world's tin mining and smelting production enjoyed by the British Empire to decline but fails to even out fluctuations in production. American consumers may well share the opinion of the Economist that

a control committee representative of producers—whether of the actual companies or of Governments of producing companies—finds it difficult to resist the temptation to raise prices.

The restrictions and cartel experience in the rubber industry have been quite similar.

THE INTERNATIONAL RUBBER AGREEMENT

Dr. KREPS. I submit as an exhibit the present agreement of the rubber producers, and wish to call attention to certain features in this agreement.

The CHAIRMAN. This "Exhibit No. 2080" you desire to be printed?

Dr. KREPS. Yes, sir.

The CHAIRMAN. Without objection it is so ordered.

(The document referred to was marked "Exhibit No. 2080" and is included in the appendix on p. 13369.)

Senator KING. What countries are parties to that? All the rubber-producing countries in the world?

Dr. KREPS. Yes; the signatories to this are, for the Government of the French Republic, Ch. Corbin; for the Government of the United Kingdom of Great Britain and Northern Ireland, John Simon, P. Cunliffe-Lister; for the Government of India, B. N. Mitra, subject to certain reservation; for the Government of the Kingdom of the Netherlands, R. de Marees van Swinderen; for the Government of the Kingdom of Siam, Phya Subarn Sompati.

The CHAIRMAN. This country is dependent upon the countries named in this agreement for its rubber supply?

Dr. KREPS. It is for its entire rubber supply. There are several interesting features of this agreement which are, however, quite general. In the first place they wanted this agreement in order to adjust the supply of rubber to the demand for it, and maintain a fair and equitable price level which would be reasonably remunerative to efficient producers. That, I may say, is the general reason for cartels.

Senator KING. Did you examine this sufficiently to determine whether there had been any great decline or any decline in the price of rubber during the past 15 or 20 years?

Dr. KREPS. There has been since the World War.

Senator KING. Between 1920 and 1933 there was considerable decline?

Dr. KREPS. Yes. This cartel and agreement did not come into force until 1933. This is the successor to the original Stevenson plan back in 1926 which broke up mostly because other producers came into the picture, notably the Dutch. This is the agreement now in force.

Senator KING. You discovered, did you not, in your researches that if prices went rather high competition was developed?

Dr. KREPS. Supplies come in from almost inconceivable quarters.

Senator KING. When silk became too high we got rayon?

Dr. KREPS. Well, there isn't quite so much connection between the invention of a substitute and its price as there is between finding a new source of supply for the same article. That is, invention has other reasons than the high price of an article, although the latter stimulates substitutes, no doubt about that, if they are available.

Senator KING. Take the plastics, they are serving a very important purpose, in part a purpose which was prior to the development of the plastic, served by other minerals or commodities?

Dr. KREPS. Although in many instances they serve brand new purposes for which nothing was formerly available.

The CHAIRMAN. What are the principal restrictions on the production and distribution of rubber set forth in this exhibit?

Dr. KREPS. I will indicate some of the features of interest in that regard. First is the International Rubber Regulation Committee that has been set up under this agreement which fixes from time to time for each territory or group of territories a percentage of the basic quota.

Then they enforce that quota by penalties, particularly on export and on import.

The CHAIRMAN. Now each producing country is assigned a specific quota?

Dr. KREPS. I have the tonnages here.

The CHAIRMAN. What other restriction is there?

Dr. KREPS. There is restriction on the amount they can export and, incidentally, import. That penalty runs as follows:

> Unless such rubber is accompanied by a certificate of origin, duly authenticated by an official, duly empowered for this purpose by the Administration of the territory or group, the penalties which may be imposed for this offense shall include (*a*) the destruction, and (*b*) the confiscation of the rubber.

In other words if they import or export more than the amount set, then the International Regulation Committee may order such excess rubber, not having the certificates of exportation and importation, to be destroyed or confiscated.

The CHAIRMAN. By whom will they be destroyed?

Dr. KREPS. The International Regulation Committee will order it done.

The CHAIRMAN. But this is an agreement of countries?

Dr. KREPS. Yes.

The CHAIRMAN. Now, suppose one country should choose to disregard the restrictions, how would the restrictions be enforced against it? Certainly not by the committee?

Senator King. Gentlemen's agreement.

Dr. Kreps. Presumably the government would enforce it upon the producers under that government's jurisdiction. Now if the government decides not to play ball, so to speak, then the agreement falls and will break up, unless certain penalties can be inflicted on that government.

The Chairman. This committee has no machinery by which it may enforce the terms of the agreement, has it?

Dr. Kreps. None, except that its certificate has to go——

The Chairman (interposing). Might be made effective by each country within its own borders of the excess importations from an offending country?

Dr. Kreps. That is correct.

The Chairman. I could see how confiscation and destruction might take place there, but it would be impossible, I take it, for one country or for the committee to attempt to enforce obedience to the agreement in another country which was violating.

Dr. Kreps. This has only the force back of it that treaties have.

Senator King. And some of those cartels are made by companies and individuals rather than by governments?

Dr. Kreps. Most of them.

Senator King. So that a cartel might be violated by a producing country of rubber and the country itself not be a party to the agreement, and therefore it would not take cognizance of the violation and enforcing of it?

Dr. Kreps. That happens occasionally, and of course that is why in event of war all agreements are broken. The similarly controlled stocks of rubber——

Senator King (interposing). Let me ask one question. Isn't it true, generally speaking, that the cartels, so-called, are not enforced by governments, nor are governments parties to them? There are cartels in which the governments are not parties and most of the cartels are agreements between individual companies?

Dr. Kreps. Correct. The number of cartels in which governments are participants is a very small percentage of the total number. Most of them are cartels between individual, independent business enterprises.

Representative Williams. However, the one you are now discussing is a governmental agreement?

Dr. Kreps. That is why I brought it in, as an example of that type of agreement.

The Chairman. Now, this agreement to which you were referring before I joined the committee this afternoon, with respect to tin, is not a Government agreement, is it?

Dr. Kreps. The tin control is, that is correct, not entirely a Government agreement.

The Chairman. So that there are some implications to this quotation from the Economist—let me read it in order to get your comment on it. Apparently under the heading "Tin under control" the Economist on March 14, 1939, said:

> Few people nowadays are opposed in principle—

the Economist certainly is not—

> to the cooperative adjustment of the supplies of raw material to the demand for them at a price yielding a reasonable profit to efficient producers.

Do you interpret that as meaning that the author of that statement believes that producers without any approval or cooperation by the governments of all the people should be empowered to place commodities like tin under control?

Dr. Kreps. I don't think so. I have the article here in its entirety, and the article starts by saying,

> We agree with this in principle—

and then goes on to make the observations which are made subsequently here, that a control committee, representative of producers—it says,

> whether of actual companies or of governments of producing companies, finds it difficult to resist the temptation to raise prices.

The Chairman. I see.

Dr. Kreps. So you see, while in principle they wouldn't be opposed, actually the way things work out they find it difficult not to be skeptical.

The Chairman. There is nothing in the article, in other words, to justify the inference that the author believed in control through nonpublic sources?

Dr. Kreps. No; there is nothing.

The Chairman. Or nonpublic agents?

Dr. Kreps. No. This rubber agreement controls not only imports and exports but controls stocks. No one can hold stocks of rubber exceeding 20 percent of the rubber wholly grown or produced and removed from his holding during the preceding 12 months, or alternatively a quantity equivalent to twice the amount he is entitled to export during any month. That is the total amount of stocks which can be held. Similarly, with regard to planting, in article 12—

> the planting of rubber plants during the period of the Regulation shall be prohibited absolutely.

Similarly with regard to replanting (in the same article):

> An area not exceeding 10 percent of the total planted area of his holding in the territory or group of territories shall be allowed for replanting.

They even go so far in Article 13 as to prohibit the exportation of—

> any leaves, flowers, seeds, buds, twigs, branches, roots, or any living portion of a rubber plant that may be used to propagate rubber.

The Chairman. Now this agreement, of course, is not different in principle from the agreement to which the United States is a party, governing the distribution and production of sugar throughout the world?

Dr. Kreps. No; the sugar agreement would be called a cartel, abroad at any rate. Competent foreign observers—in fact it would be difficult to find a foreign observer that would not call either the sugar or rubber agreement a cartel.

The Chairman. So now we have two kinds of cartel agreements, using the word in the sense that you are now using it, namely those which are entered into by public authority, as in the case of sugar and rubber, and those which are entered into by private authority?

Dr. Kreps. And a third group in which private individuals and government are united.

The Chairman. But they are all much alike in purpose and in effect?

Dr. KREPS. Yes.

Senator KING. But the overwhelming number of cartels, using the term as you have used it in your answers to Senator O'Mahoney, are formulated by and entered into by individuals or corporations or partnerships?

Dr. KREPS. That is correct.

Representative WILLIAMS. You have mentioned sugar and rubber as a sample of cartels entered into by governments. What others? Have you made a sufficient study to give us a general list of the articles that are covered by governmental agreements?

Dr. KREPS. I have not gone through the complete list to see how many governmental agreements there are, but there are some others. In this list of international cartels, offhand I can say that governments are parties in these agreements, potash——

Senator KING (interposing). Could you give the governments?

Dr. KREPS. Potash, the French and German Governments are members. Nitrate, the Chilean Government is a member.

Senator KING. With respect to potash, neither the German Government nor the French Government per se is operating the potash plants or developing the industry. The plants are operated and owned by private persons, but the government joins in the cartels?

Dr. KREPS. No; both in Germany and in France some of the plants are owned by the government. In Germany the State of Prussia and the State of Anhalt, for example, own potash mines and are members of a large German cartel, a domestic syndicate, which in turn is a member of the international cartel, with the government participating.

Senator KING. That is to say, the government compels itself, where it is interested, to join the cartel.

Dr. KREPS. Undoubtedly there are others, but those are the only only ones that occur to me offhand in that list. Of course that list is by no means exhaustive.

Returning to the rubber agreement again, we find a typical provision in that the vote is based on tonnage produced. In the rubber agreement there is one vote for every complete thousand tons for the basic quota for the year of the territory or group of territories represented by that delegation. This agreement is also typical in that it provides for cooperative research on the rubber plant and on rubber markets.

At the present time, that is, for 1940, the quotas for the various districts are:

	Tons
Straits Settlements	642, 500
Netherland India	640, 000
Ceylon	107, 500
India	17, 750
Burma	13, 750
State of North Borneo	21, 000
Sarawak	43, 700
Siam	55, 300

As the exhibit shows, these quotas have been worked out up to 1943 in terms of basic tonnages to be produced in each of these territories.

Representative WILLIAMS. Are there any restrictions on where those quotas shall be sold?

Dr. KREPS. No. Of course most of this is sold in the United States, and in a protocol of last year they suggested that the number of representatives of the United States on the advisory panel should be increased to two. Thus in this International Rubber Cartel the American manufacturing industry, the rubber manufacturers, have a membership of two on the advisory panel.

The renewal of this agreement was supported by the Rubber Growers Association, the Internationale Vereeniging voor de Rubbercultuur (Holland), the Union des Planteurs de Caoutchouc en Indochine (France), and by the Advisory Panel of Manufacturers.

Senator KING. Was there harmony, so far as you could ascertain, between the consumers or rubber—they are largely in the United States—and the producers of rubber?

Dr. KREPS. The minutes of the committee are not available for inspection.

Senator KING. Do the prices which you have ascertained by investigation show a decline, a consistent decline, during the years?

Dr. KREPS. No. As you know, rubber has risen in price since 1932.

Senator KING. Do those agreements have provisions that in the event of international conflict, wars, would affect the production or prices and the agreements cease to exist or be modified?

Dr. KREPS. I have no such provisions, but it is true when war breaks out that these agreements fall. The period after the war is always a period of jockeying between producers in various countries to renew the international cartel agreement.

Senator KING. In the case of war, laws are silent as well as agreements.

Representative WILLIAMS. To what extent is there uniform price on these quotas sold by the different nations?

Dr. KREPS. They quote the price.

Representative WILLIAMS. They fix the price in the agreement?

Dr. KREPS. No; the International Rubber Committee, the regulation committee, determines the price.

Representative WILLIAMS. That isn't the same the world over, is it?

Dr. KREPS. No; it is the same from the points of shipment, and then freight charges are added.

Representative WILLIAMS. It is the same except as to the transportation costs?

Dr. KREPS. That is right. There is no delivered price for rubber.

Representative WILLIAMS. And the association fixes that?

Dr. KREPS. Yes; this regulation committee.

Representative WILLIAMS. Does that remain uniform through the years?

Dr. KREPS. No.

Representative WILLIAMS. They change it how often? Is there any rule about that at all?

Dr. KREPS. There is no rule about it.

Representative WILLIAMS. Do you know what are the elements that enter into their consideration in changing that price?

Dr. KREPS. I don't know, but I would imagine business conditions, items of that nature.

OCEAN FREIGHT RATES ESTABLISHED BY CONFERENCES

Dr. KREPS. Turning now to another field of cartelization, and one with which the counsel for the committee, Mr. Scoll, has had a great deal of familiarity, ocean freight rates have been customarily established by conferences.

Ocean freight rates have for more than 50 years been influenced, if not determined, by conferences or cartels of shipowners and governments. For shipping due to stimulation by governments with nationalistic ambitions and with responsibilities for national defense has perennially been characterized by excess capacity and low profits, if not losses. Quoting this pamphlet, self-preservation——

The CHAIRMAN (interposing). What is the pamphlet?

Dr. KREPS. Control of Ocean Freight Rates in Foreign Trade, a world survey by Albert E. Sanderson, United States Department of Commerce, Trade Promotion Series No. 185.

> Self-preservation has impelled shipowners to organize for the purpose of minimizing wasteful competition. * * * The depression which began in 1929 was so prolonged and devastating to the financial resources of shipowners that they were forced to resort to unprecedented measures of cooperation.

How unprecedented is shown in this exhibit which I offer.

The CHAIRMAN. The exhibit may be received.

(The document referred to was marked "Exhibit No. 2081" and is included in the appendix on p. 13377.)

Dr. KREPS. I would like to comment on this exhibit, because it outlines the plan now in operation of the first international pool ever consummated. Thus even that most individualistic of all enterprises, the tramp steamer, has been brought under cartel control.

Senator KING. Is the United States a party to that?

Dr. KREPS. No.

The CHAIRMAN. This is not a Government cartel?

Dr. KREPS. No, this is not a Government cartel. This is what we call a pool. It records the formation of an association, the members of which pay into a common pool a percentage of all freights received by them on charters made after the plan becomes operative.

The CHAIRMAN. Are American shipowners in that pool?

Dr. KREPS. No; the members of this committee comprise—I can read their names.

The CHAIRMAN. Do. I think it would be interesting.

Dr. KREPS. Guiseppe Chiarella ("Petroleum" S. A. de Navigazione, "Perseveranza" S. A. di Navigazione), Genoa; W. Molyneux Cohan (H. E. Moss & Co.), Liverpool; William Davies (Davies & Newman), London; W. H. de Monohy (N. V. Phs. Van Ommeren's Scheepvaartbedrijf), Rotterdam; J. T. Essberger, Hamburg; H. Hoogland (Blidberg Metcalfe & Co.), Göteborg; P. Ll. Hunting (Hunting & Son, Ltd.), Newcastle-on-Tyne; A. P. Moller, Köbenhavn; D. Paust (Fearnley & Eger), Oslo; J. Perrachon (Compagnie Auxiliaire de Navigation), Paris; A. Rapp (the British Oil Shipping Co., Ltd.), London; H. T. Schierwater (the United Molasses Co., Ltd.), London. Schierwater was the chairman of this committee.

This, you see, includes British, French, Swedish, Norwegian, Danish, Dutch, Italian tanker companies and tanker owners. Here they establish the percentage payable into the pool:

Although the maximum percentage payable to the pool on voyage charters has been fixed at 33⅓ per cent of the gross freight, the intention of the committee is to recommend that at the commencement of operations a rate of 10 per cent to 15 per cent be levied.

For enforcement they not only keep this pool but they keep a register of brokers who will cooperate and support the pool in view of the benefits which brokers will receive due to the higher freight rates. Thereby they cooperate with the brokers and the brokers cooperate with them.

They limit the number of vessels. Signatory companies will not put into service any of their vessels at present laid up, unless under repair, except that they will be permitted to substitute individual vessels laid up for an approximately equal tonnage of vesssels now running.

Representative WILLIAMS. What traffic does that represent?

Dr. KREPS. That does not represent a large part of ocean traffic but does represent all the oil and other commodities that are shipped by tankers.

Representative WILLIAMS. From your studies has that had an effect on transportation rates?

Dr. KREPS. That I can't exactly say. I don't know what is cause and effect, but I do know that right at the present time we are in a vicious circle; fuel oil prices have risen nearly 50 percent since the outbreak of the war, which is alleged to be due to the increased tanker charter rates. These increased charter rates in turn are said to be due to the increased cost of fuel oil.

Senator KING. That has increased prices in securing insurance. The charter wouldn't include insurance, would it?

Dr. KREPS. This happens to be in our own intercoastal trade.

The CHAIRMAN. Of course, under our law none of these foreign tankers would engage in the coastal trade.

Dr. KREPS. None at all, so the question, you see, Congressman Williams, is somewhat difficult to answer, but it seems clear that a tanker pool of this sort has not been without influence on freight rates.

Senator KING. That tanker pool is not limited to purely coastwise trade?

Dr. KREPS. It doesn't affect intercoastal trade whatsoever. That is too strong. Normally, it would not affect our intercoastal trade.

INCANDESCENT ELECTRIC LAMP CARTEL

Dr. KREPS. The manner in which international cartels are required to set up international economic parliaments and governments, that is their own governments, is excellently illustrated by the present international incandescent electric lamp cartel. This cartel has a long and interesting history going back nearly 40 years. The present convention (and this is the name of the so-called cartel) for the Development and Progress of the Incandescent Electric-Lamp Industry was reorganized in 1924 and consisted of 27 producers, including virtually every large producer in Europe, the most important being the Osram, Philips, Compagnie des Lampes, the Italian S. E. C. (Societa

Edison Clerici) Co. and the largest British producers. The situation changed little until the outbreak of the war. According to the United States Tariff Commission in its document, Incandescent Electric Lamps, published in 1939:

Under the terms of the agreements now in effect, the companies apportion among themselves the principal world markets. The General Electric Co. has granted to the foreign companies with which it has agreements exclusive licenses under its patents to manufacture and sell electric lamps in specified countries, which are described as exclusive territory. In a number of these agreements, the General Electric Co. has granted both exclusive and nonexclusive licenses to the foreign companies, whereas other agreements are limited to either exclusive or nonexclusive licenses, depending upon various considerations. In the territory described as exclusive, the companies agree not to compete or to grant licenses to competing companies; in nonexclusive territory they may compete or grant licenses to competing companies, but upon terms usually stipulated in the agreements.

The licenses prohibit the given foreign licensed company from manufacturing or selling lamps outside the territory in which it is licensed. The General Electric Co. is prohibited from engaging directly or indirectly in the manufacture of lamps in any of the territories assigned exclusively to the foreign companies.

In return for the grants which it makes to the foreign companies, the General Electric Co. receives from each of the companies an exclusive license to make and sell lamps in the United States under all patents owned or controlled by these companies. It also receives from some of the foreign companies royalties for the use of its patents and developments.

The foreign companies with which the International General Electric Co. has agreements and under which exclusive licenses have been granted by it, are:

British Thomson-Houston Co., Ltd	England.
Compagnie des Lampes	France.
N. V. Philips Gloeilampenfabrieken	Netherlands.
Osram G. m. b. H. Kommanditgesellschaft	Germany.
Tokyo Electric Co., Ltd	Japan.
Societa Edison Clerici Fabbrica Lampage	Italy.
Cia. Mexicana de Lamparas Electricas, S. A	Mexico.
China General Edison Co., Inc	China.
General Electric S. A	Brazil.

Parenthetically here the fact should be noted that the General Electric Co. has a financial interest in nearly all the companies mentioned.

The CHAIRMAN. The apportionment of the markets is a restraint of trade which has been condemned so far as domestic business is concerned.

Dr. KREPS. Yes.

The CHAIRMAN. As a violation of the antitrust law, is it not?

Dr. KREPS. That is right.

Quoting again:

Inasmuch as the exclusive territories of the firms listed above include virtually all of Europe, Japan, China, Brazil, and Mexico, together with the colonies, protectorates, possessions, and mandates of the countries included in the agreements, competition in the United States market from these sources, is largely eliminated and conversely the General Electric Co. is prohibited from competing in many important foreign markets.

Dr. LUBIN. Dr. Kreps, for the purpose of the record, referring to your answer to the Senator's question, I doubt whether the courts have ever held that you couldn't use your patent in that way. In other words, restriction of markets within the United States may be held to be violation of the Sherman Act, but where a patent was involved I personally don't know of any case where it hasn't happened, I mean we have had evidence before this committee of other companies and other kinds of industry using patents in that way and no court has ever declared that to be illegal.

Dr. KREPS. I don't know what difference there would be between this and the bathtub case or the international machinery case, but there are court records under the antitrust laws of procedures against companies that pool patents.

The CHAIRMAN. I was referring to the bare fact that the apportionment of territory has been generally recognized as a violation of the antitrust laws. I was not referring at all to any exceptions that might come up under the patent law or exceptions that might follow under the Pomerene Act which exempts exception from the antitrust law so far as foreign trade is concerned.

Dr. KREPS. The agreements to the convention originally scheduled to continue to 1934 were revised and extended to 1935. In order that the terms of the convention might be applied, an administrative agency known as the Phoebus Co. was formed, with its principal office at Geneva. It acts as intermediary for the exchange of methods of manufacture and for the acquisition of patents. All members of the convention are partners in it. All obligations are subject to high penalties, the payment of which is guaranteed by the deposit of considerable sums, depending on the business turn-over of the individual partners.

In addition to a special arbitral tribunal which makes final award in all disputes there are several controlling bodies, to wit (1) the general assembly meeting once or twice a year, a vote being given for each million-unit lamps in a member's share quota during the basic years; (2) the administrative board which watches and directs the application of the convention. It has an executive committee of six members to make decisions on current, particularly financial, matters; (3) the business-development committee; (4) the sales committee which gives general directions for the fixing of prices and conditions of sale in various territories; (5) the standardization committee, designed to bring complete uniformity as regards external form, internal structure, dimensions, and lighting power of all products of the firms members of the convention.

In each country of manufacture or sale there are national assemblies which decide by three-fourths majority upon prices and conditions of sale locally. These national economic governments are, of course, subject to the International Administrative Board and International General Assembly.

Dr. LUBIN. Is the General Electric of the United States a member of the assembly? Do they vote, too?

Dr. KREPS. Yes. They have branches abroad. They have a financial interest in companies abroad and usually their interests are taken care of through companies——

Dr. LUBIN (interposing). They don't vote as General Electric Co. of the United States? In other words, their production isn't taken into consideration at all?

Dr. KREPS. No.

Representative WILLIAMS. Do I understand from this agreement that all competition from foreign sources is cut out of the United States, such as the General Electric?

Dr. KREPS. Largely so, as the Tariff Commission notes.

Representative WILLIAMS. So far as these agreements go there isn't any of those companies that are allowed to compete with General Electric in the United States?

Dr. KREPS. So far as incandescent electric-light bulbs are concerned. Of course, this is only one of dozens of products put out by the General Electric Co.

Representative WILLIAMS. I understand, so far as that agreement goes, they have exclusive privilege in this country, so far as foreign competition is concerned.

Dr. KREPS. That is correct.

COMPULSORY CARTELIZATION AND THE GROWTH OF INTERNATIONAL COMBINES

Dr. KREPS. Now what causes compulsory cartelization? The story of cartels in the potash industry provides an instructive example of the forces which impel compulsory cartelization.

In 1876 the first potash cartel was consummated between the mine owners, the states of Prussia and Anhalt and the refiners. In the next 30 years numerous agreements on prices and joint selling agencies were formed, disrupted, and reformed. In 1909 certain American fertilizer companies drove a shrewd bargain with the Schmidtmann group which had seceded from and broken up the potash cartel. Despite protests from our State Department coupled with tariff bargainings, the German Reichstag passed in 1910 the Reichs-Kaligesetz, the first compulsory cartelization law in modern Europe. It fixed production quotas and provided for the fixing of prices every 5 years by the Federal council upon consultation with potash producers and consumers. But the number of mines increased from 68 in 1910 to 168 by the end of 1913, while production increased only 20 percent.

The CHAIRMAN. How were the consumers consulted in this potash agreement, do you know?

Dr. KREPS. There were certain associations of fertilizer consumers and agricultural and industrial consumers who were just brought in. There was no official vote given to them.

The CHAIRMAN. They were brought in as a matter of grace?

Dr. KREPS. As a matter of grace.

The CHAIRMAN. And only those who were invited could come in?

Dr. KREPS. That is correct.

Most mines were working at low capacity. The unexplored potash area resembled a new gold-mining region or oil dome. New competitors kept appearing as long as there remained a chance of a "strike." Individuals continued to sink new shafts and secure a new allotment of the total quota. In 1919 a new law was passed, establishing a Reichskalirat of 30 members to run the industry of which 5 represented producers, 3 the state governments, 8 the workmen, 3 the directors of the potash-selling syndicate, 1 the technical employees, 4 the agricultural consumers, 2 the potash dealers, 2 the chemical users, and 1 a potash expert. This council controlled production, consumption, sales, and prices except that the final voice on prices could be exercised by the Imperial Government through the Minister of Economics.

By Stillegungsverordnungen of 1921 and 1924 the council was empowered to close down high-cost shafts. Thus in 1928 the number of active mines was only 60 as opposed to 175 in 1914, while the production per mine jumped from 5,200 to 23,700 metric tons. I

ought to add that the price of potash declined below what it had been before the World War.

In the meantime, the combination movement went on apace, the potash interests being concentrated in two groups, one the Wintershall group controlling about 39 percent of production, the other the Kaliblock controlling about 53 percent.

But the menace of cutthroat competition now came from the Alsatian mines which had been returned to French control. Consequently a series of agreements were attempted, the one in force until recently being substantially that adopted in 1926 and reproduced in "Exhibit No. 2082," which I would like to submit for the record.

Mr. SCOLL. The "Text of Franco-German Potash Accord Signed at Paris, December 29, 1926," is offered as an exhibit.

The CHAIRMAN. It may be received.

(The document referred to was marked "Exhibit No. 2082" and is included in the appendix on p. 13380.)

Dr. KREPS. According to this agreement, annual sales outside of Germany and France are divided up to a limit of 840,000 metric tons of potassium oxide in the ratio of 70 percent to the Kalisyndicat and 30 percent to the Societe Commerciale des Potasses d'Alsace.

Every 10 days mutual notification of orders and deliveries is made. Prices are agreed upon. In 1927 a joint sales agency, N. V. Potash Export Maatschappij was formed to handle all export sales to the United States.

Thus the American potash industry is faced by an international cartel, with foreign governments not only participating but compelling cartelization, depriving American consumers of the benefits of competition. That in certain instances counter-cartels have been formed is readily understandable.

Now practically all observers agree with Dr. Liefmann, who states in the Encyclopedia of the Social Sciences in his article on cartels that "there has been a marked tendency under the influence of the cartel toward the formation of more integrated types of organization such as combines and consolidations." These industrial combinations frequently supplement international cartelization, being the organizations which divide markets, make price agreements, and pool patents. We find international combines and communities of interest in the coal and iron industries, the chemical industries, particularly in the nitrogen and rayon industries, in the electrotechnical industry (American and German General Electric Co.), the European cellulose, paper, and tobacco industries, the European linoleum and cork industries, and in the copper, nickel, zinc, quicksilver, lead, and other metal industries.

Probably no more illuminating example of the growth of combination and international cartelization exists than in the dyestuffs industry. Even as late as 1912 there were 16 independent firms in Germany making coal-tar dyes, with more than 90 percent of the output controlled by five large firms, namely: (1) Badische Anilin und Sodafabrik (B. A. S. F.), Ludwigshafen, (2) Farbenfabriken vorm. Friedrich Bayer & Co., Elberfeld-Leverkusen, (3) Farbwerke vorm. Meister, Lucius & Brüning, Höchst, (4) Leopold Cassella & Co., Frankfurt, (5) Aktiengesellschaft für Anilinfabrikation (Agfa), Berlin, but even as between one and another of these concerns there were interlocking interests and

the position at the outbreak of war was that the German dye industry was massed in two great groups, as follows:

The Höchst-Cassella group, consisting of Meister, Lucius and Brüning of Höchst and Leopold Cassella and Co. of Frankfurt, which was formed during 1904. Messrs. Cassella acquired the right to sell artificial indigo and in return Meister, Lucius and Brüning's agents were authorized to sell diamine colors on the basis of a common price list.

The Badische group consisted of the Badische Anilin und Sodafabrik, Friedrich Bayer, and the Aktiengesellschaft für Anilinfabrikation (Agfa). This group was formed toward the end of 1904, when an agreement was made to operate for 50 years as from January 1, 1905. According to this agreement, the members retained their independent organizations, but a central board was formed to have charge of matters of mutual interest. The common profits were computed annually according to a uniform system and of these profits the Badische Anilin und Sodafabrik and the Bayer Co. each received 43 percent, while the Berlin Aniline Co. received 14 percent.

The reasons for the formation of these combinations in Germany were alleged to be: (*a*) Increased strength to meet competition, (*b*) joint buying of raw materials, (*c*) the supplying of certain products to each other, (*d*) joint protection in patent and license matters, and (*e*) joint establishment of factories in foreign countries.

The general results of the concentration of the industry in Germany were that, out of 16 concerns engaged in the industry, two powerful groups or rings developed, and these two groups were able largely to control the prices of raw materials. One result of the amalgamation was, of course, that competition between the various concerns abroad was reduced. The mutual exchange of processes of manufacture, business methods, relations with customers, and of experiences in general is said to have resulted in the reduction of expenses, and it has been asserted that within 2 years after the combines were organized, the costs for traveling salesmen and advertising were reduced by one-half.

Representative WILLIAMS. What about the price?

Dr. KREPS. The price also went down.

Representative WILLIAMS. Correspondingly?

Dr. KREPS. No; not correspondingly, but allowing for a change in the general price level.

In 1916 the first community of interests or I. G. was formed which united all the dyestuffs producers of Germany into one organization. While still reserving their independent labor force, management, and stockholders, the several firms pooled their sales organizations, their patents and processes, and their profits, the Badische, Bayer, and Höchst concerns each getting 24.82 percent of the total profits, Cassella 9.813 percent, Agfa 8.082 percent, Griesheim 6 percent and Weiler 1.645 percent.

A mutual trade of production was effected, concentrating various products in the plants of lowest cost. They established a general administrative committee to effect coordination of research, financial policy, and the like.

The CHAIRMAN. Dr. Kreps, could you amplify the statement with respect to the various items of reduced expense which this combination resulted in, to which you referred just a moment ago? You spoke of the cost of traveling salesmen and the expense for advertising. Were there any other reductions?

Dr. KREPS. By concentrating production of one dyestuff or group of dyestuffs in one plant they were able to reduce manufacturing cost as well as their selling cost.

The CHAIRMAN. This reduction in the expense of traveling salesmen may have been the result of the dismissal of some traveling salesmen, do you think?

Dr. KREPS. Oh, yes; that happened. By establishing joint sales agencies and having, say, in the United States, one company which would sell all the products of all these German firms, all the dyestuffs, they could exhibit any one of a group of dyestuffs so that the buyer could pick the company from which he wanted to buy in one office. Obviously they reduced their sales force.

The CHAIRMAN. In other words, contributed to unemployment at the same time.

Dr. KREPS. Yes; that is one result.

The CHAIRMAN. How about the reduction of manufacturing cost, did that also involve the dropping of workers in the plants?

Dr. KREPS. Relatively, that is, they needed fewer workers to produce the dyestuffs. However, actually what happened was that the industry was expanding in many other lines besides dyestuffs at this time so that the industry can show a record of increasing employment throughout this period.

In 1925 a complete fusion was effected. The I. G. now made scores of products of utmost diversity.

I wish you would turn to the chart entitled "Colossal Structure and Ramifications of the Great German Chemical Combine," which I would like to submit as an exhibit.

The CHAIRMAN. The chart may be received.

(The chart referred to was marked "Exhibit No. 2083" and is included in the appendix facing p. 13382.)

Dr. KREPS. In that chart the middle figure should read Interessengemeinschaft Farbenindustrie Aktiengesellschaft, which is the long technical title for what we call I. G.

The CHAIRMAN. Can you see that that is made more clear for the record?

Dr. KREPS. Yes.

The CHAIRMAN. I would identify it on the side, if you can't in the diagram itself.

Mr. SCOLL. We will produce a fresh copy so it will be clear.

Dr. KREPS. This chart is submitted, not to study all the details, of course, but to show the extent to which already in 1925 the dyestuffs concern had branched out far beyond dyestuffs into nitrogen, pharmaceuticals, photostatic and textile chemicals, inorganic chemicals, minerals, lignite, petroleum products, explosives, agriculture. They began to have interests in mining, coal, iron, and potash, lead, explosive, and fertilizer companies of all sorts. This is a direct result of cartels. If you are limited in one regard, you are not limited in other respects, so you take your labor force, or that excess equipment, or whatever you have that cannot be used because of the cartel agreement. You put it to work in areas and in products not covered by the cartel.

It had cartel agreements in dozens of commodities with producers in every part of the globe. Nothing shows this fact more effectively than the series of negotiations which finally brought about the

international dyestuff cartel. The movement toward national integration in the dyestuff industry was not peculiar to Germany. It had occurred in almost identical fashion in England, France, Italy, and the United States.

I want to submit here a chart which shows the coal-tar dye manufacturers in producing countries of the world, and their cartel participation. The cartel members are shown in firm outline, and you will notice that the cartel members consisted of firms in Germany, France, Poland, Switzerland, and certain branches in the United States, because these firms had branch firms in the United States, and the United Kingdom, and Italy.

(The chart referred to was marked "Exhibit No. 2084" and is included in the appendix facing p. 13382.)

Dr. Kreps. All of these firms shown in "Exhibit No. 2084" are firms producing one or another type of coal-tar dyestuff. In each case you have an agreement somewhat similar to those that I have put into the record this afternoon.

The Chairman. Let's get an interpretation of "Exhibit No. 2084." The principal countries at the top of the chart are Germany and Switzerland.

Dr. Kreps. They are the two chief dye producers in the world, or were at this time.

The Chairman. Let's follow the line with respect to Germany. Let us have it described, just what it means.

Dr. Kreps. Germany has a direct interest in Durand et Huguenin, which is a French concern. It has a direct interest in Colori Nazionale Affini, S. A. The General Aniline Works was a branch concern in this country.

The Chairman. Of course when we speak of Germany, we are speaking rather of the German cartel rather than of the Government, of course.

Dr. Kreps. Yes. There is no governmental participation in this at all. These are all private producers.

The Chairman. Now, then, with respect to the United States, it would appear that the General Aniline Works was controlled from Germany.

Dr. Kreps. That is a branch.

The Chairman. And the Cincinnati Chemical Co. from Switzerland.

Dr. Kreps. Yes, it is a branch of a Swiss firm.

The Chairman. How about the Chemical Foundation?

Dr. Kreps. The Chemical Foundation has no relationship to——

The Chairman (interposing). It is outside the cartel, of course.

Dr. Kreps. Yes, it was set up during the World War to take over certain dyestuffs' patents in this country.

The Chairman. Except for the Chemical Foundation and the work that was done under the leadership of Mr. Francis P. Garvan, the head of the foundation, consumers in the United States were dependent upon Germany and Switzerland largely for their dyestuffs.

Dr. Kreps. Before the World War entirely so, or nearly entirely so. We had a couple of producers, the Schoelkopf Bros., of Buffalo, producing sulfur deep black E. W., for example. But so far as indigo was concerned, and a large proportion of other coal-tar dyestuffs, we were almost entirely dependent upon Germany and Switzerland. At this point, however, we had developed during the World War an indigenous

dyestuff industry of our own. The du Pont concern, after the war, the Allied Chemical and Dye, and Dow Chemical Cos., among others, had made the United States independent. At the present time we manufacture more than 90 percent of our own coal-tar dyestuffs, only importing certain high specialty dyes, notably from Switzerland.

The CHAIRMAN. Until that developed after the World War, we were at the mercy of those countries.

Dr. KREPS. Before the war, we were almost completely at the mercy of Germany.

The CHAIRMAN. Most of the German companies and Swiss companies were protected by the patents issued by the United States patents.

Dr. KREPS. Yes.

The CHAIRMAN. So we were issuing our patents to a foreign cartel, enabling that foreign cartel to control the price to our own people.

Dr. KREPS. Yes.

Now, it should be understood that this exhibit only shows the cooperation in dyestuffs. The picture for explosives would be different, and the picture for rayon would be different, and so on around the circle of chemicals there would be different companies. Although on the whole these giant combines that I show in the next three exhibits——

Mr. SCOLL. Excuse me. I don't know whether that has been received.

The CHAIRMAN. These three exhibits will be received.

(The charts referred to were marked "Exhibits Nos. 2085 to 2087" and are included in the appendix facing p. 13362.)

The CHAIRMAN. Before you go on to "Exhibit No. 2085" and the others, it would appear from "Exhibit No. 2084" that the condition in the United Kingdom was substantially the same as it was in the United States before the war.

Dr. KREPS. That is true.

The CHAIRMAN. And likewise in Italy.

Dr. KREPS. Likewise in Italy.

The CHAIRMAN. France and Poland?

Dr. KREPS. France had a little more of an indigenous dyestuff industry. Not a great deal. Poland was dependent. Switzerland and Germany between them controlled at least 80 percent of the total coal-tar dyestuff trade in the world.

Now, note that I reproduced here the organization of the Interessengemeinschaft Farbenindustrie to show the relationships which it had in the twenties. Of course these relationships change almost from month to month. That should be understood. This is only a sample. This would be inaccurate in detail, in certain details, for any one year, but it is accurate at this particular time, which was 1928, at least substantially accurate at that time.

Every time an agreement is consummated, and agreements are being consummated all the time, these relationships are likely to change in some detail, but notice that at that time these concerns in the I. G. had arrangements of various sorts not only with firms of the most varied character in Germany itself, but with concerns producing the same commodity in all corners of the earth the explosive concerns being listed at the left. Dyestuffs concerns are listed directly underneath. Certain mining and mineral concerns are listed at the right,

notably, of course, lignite and coal concerns. But they had certain relationships with other firms in Germany, such as the A. E. G., which is the Allgemine Elektricitätsgesellschaft, with the union of the steel works, die Vereinigte Stahlwerke, and similarly with Standard Oil, with du Pont and with certain photographic firms, with Imperial Chemical Industries, Ltd., les Etablissements Kuhlmann, which is a French concern, the Ciba group, which is in Switzerland, British Celanese, and the Solvay group in Belgium.

You will note similarly that the chart for Imperial Chemical Industries, Ltd., tells an essentially similar story. That is, "Exhibit No. 2086." Again you will find listed there Nobel Industries, which, of course, produces explosives, Brunner Mond, soda alkali, and the British Dyestuffs Corporation, which is a member of the Imperial Chemical Industries, Ltd. You again find relationships with metal companies and mineral companies, and the like, and with foreign concerns.

Over on the right you will notice relationships there with the Interessengemeinschaft and Lee Higginson and with the De Beers Diamond Syndicate, with Mond Nickel, which later became part of International Nickel, and with other firms.

A similar chart, "Exhibit No. 2087", tells the same story for the French dyestuffs combine. This Compagnie Nationale du Matieres Colorantes et Produits Chimiques branches out into the mineral, coal, and even the textile industries. It, too, has agreements of various kinds, joint ownership, and various other relationships with foreign firms.

I didn't reproduce, although it would have been possible to do so, similar charts for certain American firms and Italian concerns. The thing I wanted to point out, the thing that seems to me to stand out clearly is that nearly every firm mentioned is a huge concern virtually embracing an entire national market, each capable of dealing on equal terms with the I. G. in Germany. All are chemical giants producing hundreds of commodities in scores of plants in every important center of chemical production and consumption in the world.

In short, combination into national monopolies was regarded as necessary to hold one's own in international negotiations. I want to repeat here the words of a very famous Report on Dyes and Dyestuffs prepared by a subcommittee appointed by the standing committee on trusts, which examined the formation of the British Dyestuffs Corporation, which, you remember, was just one of the companies listed in Imperial Chemical Industries, Ltd.

This report was published in 1921.

The Chairman. You are reading from what document now?

Dr. Kreps. I am reading from the document called "Dyes and Dyestuffs."

The Chairman. Issued by?

Dr. Kreps. Issued by the British Government, cmd. 1370, presented to Parliament.

The Chairman. Was this a subcommittee of Parliament, or was it an executive committee?

Dr. Kreps. It was a subcommittee of the standing Committee on Trusts of Parliament.

The Chairman. This was the House of Commons, Standing Committee on Trusts, a subcommittee report.

Dr. KREPS. Correct.

The CHAIRMAN. So they have monopoly committees over there, too.

Dr. KREPS. Yes. They have had a number of investigations concerning particularly the impact of these combinations and these cartels. In this case they were looking into the British Dyestuffs Corporation which had become a monopoly, and here is what they say:

> In view of these great and powerful combinations of dye-making concerns in Germany, America, and to a lesser degree Switzerland and France, it is a warrantable assumption that the British dyes industry could only be put into a position to compete effectively with its foreign rivals, whether in the home or in neutral markets, by some financial unification of its principal component firms such as that represented by the British Dyestuffs Corporation.
>
> Holding as we do the view that the giant concern is not necessarily either more efficient, enterprising or economical in its operations than the congeries of smaller concerns competing one with the other, we are, at the same time impressed, as a result of the evidence we have heard, with the degree to which international competition in dyes (as also to some extent competition within the national frontiers) is a conflict of commercial "Great Powers" exhibiting all the characteristics of militant diplomacy carried on with financial and commercial brute force in the background, rather than a simple economic matter of striving to offer, in competition with others, the most acceptable article at the most favourable price.
>
> In this "haute politique" of large-scale industry the unassociated group of small concerns, though severally and jointly more efficient as regards mere production, may be at the mercy of the aggressive and predatory policy of the less efficient but financially more powerful rival.

In other words, national cartels almost are compelled by international cartels.

The CHAIRMAN. I didn't get that.

Dr. KREPS. They are almost compelled by the tactics of international cartels. In self-defense industry within certain European countries has to get together in order to be able to present a united front against international competition.

Dr. LUBIN. Weren't these very large companies members of the international cartel themselves?

Dr. KREPS. Yes; but the British Dyestuffs Corporation was not for sometime—it wasn't really until the merger between the British dyestuffs and the Imperial Chemical Industries, Ltd., became effective, that they became members of the cartel and able to hold their own.

Dr. LUBIN. I don't get the logic of it. Being a member of the cartel, why do they have to be able to hold their own? They were given the privileges that go with membership. Is it that they could bargain better and get better terms from the cartel?

Dr. KREPS. If they can speak with authoritative voice concerning their own country; yes.

Dr. LUBIN. But the fact still remains that they were members of the cartel before and having been members they decided to get more powerful so as to get a better bargain, so they themselves were partly responsible for finding themselves in a situation that wasn't very comfortable.

Dr. KREPS. Yes; there is an element of truth in that.

Now what are the benefits of cartels?

The CHAIRMAN. Just a moment, let's pursue this matter a little bit further. The concluding sentence which you quoted from that report on dyes and dyestuffs, as I read it, was:

> In this "haute politique" of large-scale industry the unassociated group of small concerns, though severally and jointly more efficient as regards mere production, may be at the mercy of the aggressive and predatory policy of the less efficient but financially more powerful rival.

Now that doesn't seem to say that these smaller and more efficient concerns were forced to join the cartel.

Dr. KREPS. No.

The CHAIRMAN. I understood that to be your conclusion.

Dr. KREPS. No; my conclusion was they were forced to unite, or rather that the Committee of Parliament condoned their uniting into a nationally organized concern, so that they could hold their own.

Dr. LUBIN. Their own against whom?

Dr. KREPS. Against the Interessengemeinschaft; that is, against the international cartel.

Dr. LUBIN. But they were members of the cartel.

Dr. KREPS. No, no; not before they formed themselves into a national organization.

Dr. LUBIN. In other words, they were forced by cartels to amalgamate, as it were, in Great Britain, and having amalgamated they joined the cartel.

Dr. KREPS. They could get a place in the cartel.

The CHAIRMAN. Of course, side by side with this development of the cartels, this highly complex organization of large business enterprise, the condition of the inhabitants of these countries from the point of view of employment and social security was not particularly improved, was it?

Dr. KREPS. Well, the post-war period showed improvement pretty generally in Europe. I think it is difficult to see a direct connection, at any rate a simple one, between the formation of these national monopolies——

The CHAIRMAN (interposing). I don't know that I wanted to imply there was any connection. My feeling has been, and I may be wrong about it, that economic conditions in Europe have not been altogether satisfactory any more than they have been here.

Dr. KREPS. That is correct. In other words, the cartelization of Europe has not solved European problems.

The CHAIRMAN. Side by side with the growth of this structure and the development of this structure, has been this other condition which is part of the economic problem of the whole world.

Dr. KREPS. That is correct.

BENEFITS AND WEAKNESSES OF CARTELS

Dr. KREPS. The benefits which are sought by producers and governments from the formation of cartels have been summarized as follows:

1. Lower costs of production because—

(*a*) Methods of production are standardized through mutual agreement.

(*b*) Rate of production is kept at a more uniform level.

(*c*) Competitive overexpansion is reduced.

(*d*) Risk premium is less. Less stock necessary to meet unexpected demands.

(*e*) Cartel research institutes are established, patents and processes pooled.

(*f*) Problems of management are solved in mutual conference.

2. Lower marketing costs because—

(*a*) Advertising is done by cartel (syndicate) rather than individual enterprise.

(*b*) Terms of trade are made uniform, preventing unfair competition.

(*c*) Transportation expenses to uneconomical markets are eliminated through allocation of markets.

(*d*) Exploitation of seller or purchaser of cartel products is avoided through conclusion of intercartel agreements.

3. Smoothing out of cyclical ups and downs—

(*a*) Greater equilibrium betweeen productive capacity, production and consumption is obtained.

(b) Rate of employment is less subject to severe fluctuations.

(*c*) Prices are kept at a more stable level.

While the desire and attempt to realize the benefits enumerated above undoubtedly strongly impel toward the formation of cartels, certain other conditions are necessary. It helps greatly if products are standard articles of mass consumption, if productive processes are highly mechanized, if the sources of supply whether of raw materials, labor, or patents are few, and if the minimum and optimum size of plants is large.

Moreover, a tariff is often of material assistance. In the words of the organizer of Imperial Chemical Industries, Ltd., who called the international cartel "one of the greatest factors toward international peace which I have been able to conceive * * * Anyone who has had practical experience of bargaining with continental producers knows that the first thing they say is 'you cannot export to our country because we have a tariff. How much of your market are you going to give us?' " This is Baron Melchett in his book Industry and Politics. In this he is backed by the overwhelming weight of authoritative opinion. Dr. von Beckerath states, in the book I have quoted many times, "By setting stricter limitations on market areas and thus promoting national cartels, protective tariffs often created the conditions for international cartelization. They provided an even greater inducement to establish international combines." Dr. Pribram similarly states "free trade is a sufficient explanation of the nonexistence of cartels and trusts in a large section of English industries." That, of course, is prior to 1932. Liefmann in his article on cartels in the Encyclopedia of the Social Sciences makes a similar point:

> The state is also in a position to exert pressure upon the cartels through the application of various measures of economic policy, one of the most effective of which is the power to reduce the import duties on raw materials when a cartel raises prices excessively. Another practical measure that would have a similar effect is the reduction of railway rates to encourage the importation of goods competing with the products of the cartel. Reducing the tariff in order to control domestic monopolies is a policy that has been applied chiefly by Canada and New Zealand.
>
> In Canada, by virtue of the Combines Investigation Act, 1923, the Governor in Council is empowered to direct either that an article be admitted free of duty or that the duty thereon be reduced, if, upon due investigation, it appears that "there exists any combine to promote unduly the advantage of manufacturers or dealers at the expense of the public, and that such disadvantage to the public is facilitated by custom duties imposed on the article."

"Judicious use of customs tariffs" is likewise recommended by the League of Nations experts as the most adequate means of state policy in exercising its functions of guardian of the public interest, in the book on International Industrial Agreements.

From all these statements the connection between tariffs and cartel arrangements would seem to be reasonably clear. Cooperation, revulsion against risk, fear of loss on heavy investment in plant,

desire to eliminate the wastes of competition—all of these impel producers in all countries, especially during periods of stress, to perfect voluntary cooperative arrangements whereby production and prices can be stabilized, sales raids prevented and regularity of operation promoted.

But these arrangements frequently are not strong enough in good times with the result that combinations and mergers concentrate economic power over production, prices, employment, and investment in fewer hands. The growth of big business frequently surpasses national boundaries with the result that governments are urged to use their power to police those who will not behave, either by levying tariffs if the recalcitrants happen to be foreign producers or by compelling minority domestic factions to fall into line with the cartel efforts of majority groups.

Cartels, in short, may lead to concentration both of economic power and of political power.

Under certain conditions they may become the scaffolding for monopolistic structures and gigantic business combines which begin by dictating trade practices, prices, production, and sales and culminate if unchecked in dictatorial corporate statism.

Mr. Scoll. Does that conclude your statement?

Dr. Kreps. That concludes my statement.

Mr. Pike. One small correction, doctor. When you were speaking of the tanker pool you said that the price of fuel oil had trebled since the war. I think you meant possibly the tanker rates from the Gulf instead of the price of the oil; the oil had gone up from about a dollar to a dollar and a half, while tanker rates, if I remember correctly, had run up about 20 cents to 60 cents. You had that in reverse?

Dr. Kreps. That is correct.

Mr. O'Connell. I would like to ask a question doctor. You referred to the power vested in the Governor in Council in Canada to lower tariffs under certain circumstances. Do you happen to have any information as to the extent to which that power has ever been used?

Dr. Kreps. I do not have that information. I know where it can be obtained, in a book by Dr. Lloyd Reynolds just issued by the Harvard University Press on the control of competition in Canada.

Mr. O'Connell. I had been under the impression it had been used sparingly, if at all.

Dr. Kreps. That is my impression, but in precisely what industries or upon what occasions it has been used I don't know.

Mr. O'Connell. The value of such a sanction cannot be very well determined in the abstract. It might look good in the law?

Dr. Kreps. I agree.

Dr. Lubin. Dr. Kreps, would it be fair to conclude from the history of cartels that cartels can operate effectively only in those industries where there is already an inherent monopolistic tendency, at least to the extent that through patents or limited sources of raw materials it would have in a sense a natural monopoly significance which is built upon—in other words, would you find these cartels operating effectively in industries where you didn't have these other factors like raw materials, patents, or something of that sort?

Dr. KREPS. I wouldn't use the word "monopolistic." I would merely use the word "concentration." Cartels really don't operate effectively until, due to various technical situations, control has been concentrated in a few hands, where decisions need to be made by relatively few people to have an important influence on the market.

Dr. LUBIN. Well, now those instances that you mention in your testimony are instances of concentrated control, but that control itself arises out of a limitation of sources of raw materials, or limitation of finished products due to patents for example. I mean the rubber monopoly couldn't be very effective, that is the rubber cartel, if every country in the world raised rubber?

Dr. KREPS. No; and that is the difficulty with efforts to control wheat production, for example, contrasted with the relative success of efforts to control tin or rubber production.

Dr. LUBIN. In other words, most of the success of cartels is built on concentration of control, but that concentration of control itself is the outgrowth of limitation of supply or artificial factors which make it feasible?

Dr. KREPS. That is why in my first sentence I said cartels are really a product or a phase of modern industrialism.

The CHAIRMAN. Well, that is broader than Dr. Lubin indicated, is it not?

Dr. KREPS. Yes.

The CHAIRMAN. Now I find this sentence in your printed testimony, "We find international combines and communities of interest in the coal and iron industries." Are either of those industries dependent upon patents, or on actually limited supplies?

Dr. KREPS. In Europe deposits of coal are concentrated in relatively few areas, added to which is the circumstance that France or rather the Lorraine area and the Ruhr coal area should never be separated. They are really economic counterparts. Therefore the producers in those two areas have to get together; there has to be some working arrangement so that the minette ores can be combined with the good coking ore in the Ruhr. It is that sort of concentration of mineral supplies which is most conducive to——

The CHAIRMAN (interposing). But in that instance you do have a natural limitation of supply?

Dr. KREPS. Yes.

Dr. LUBIN. But on the other hand, if the steel industry of the Ruhr hadn't been controlled and concentrated in a few hands you might have had a relatively competitive situation which would make it just as easy for that coal to flow back and forth on a competitive basis as it is today?

Dr. KREPS. You might have had competition at least between Great Britain and the Ruhr and Silesia mines.

Dr. LUBIN. You might have had competition within the Ruhr itself?

Dr. KREPS. Quite, and competition between the producers there in the Ruhr and Lorraine.

The CHAIRMAN. Now then, the next industry mentioned was the chemical industry, particularly the nitrogen and rayon industries. Well, patents have their application there, of course. In the electrotechnical industry the same is true. The European cellulose, paper, and tobacco industries, what are the characteristics of those industries?

Dr. KREPS. There you have standardized products, mass production, and a tendency toward concentration in a few large plants.

The CHAIRMAN. To what is that concentration attributable, to patents?

Dr. KREPS. No; not fundamentally.

The CHAIRMAN. Limitation of source of supply?

Dr. KREPS. No. Fundamentally, to machine technology. It is just a fact that in producing cigarettes, for example, machinery has been so developed that the unit of minimum or optimum size is a large unit and that only a few such units are required to supply a large market.

The CHAIRMAN. And we come to the linoleum and cork industries, and to copper, nickel, zinc, quicksilver, lead and other metal industries.

Dr. KREPS. Of course, in the latter industries the dominating influence is the fact that supplies are found in relatively few areas.

The CHAIRMAN. Well, now, covering the whole field, what, in your opinion, is the most important overall force bringing about cartelization?

Dr. KREPS. Historically, I would say it was necessity. Here you have these large concerns with heavy capital investment. If they try to reduce price down to the level of direct costs, the price would go down to almost nothing. They see this risk to their investment. There are a few firms, seven or eight or so, and after they have accepted a beating from the market for a certain period of time, they say, "Well, why don't we sort of live and let live? Why don't we reason together?"

The CHAIRMAN. So the larger the concern gets, the more likely it is to avoid the effects of competition, is that the conclusion?

Dr. KREPS. The more powerful it is to do what Walter Lippmann says all businessmen do, have as little competition as they can, or, what is that quotation, Dr. Lubin?

The CHAIRMAN. I thought you would be able to quote Walter Lippmann without prompting.

Dr. KREPS. Competition is something of which producers have only as much as they cannot eliminate. That is true all the way around the circle. We all try to establish some little niche for ourselves and hope that nobody else can merchandise the same product.

Mr. O'CONNELL. Well, the fact is that the forces which you indicated as causing or impelling international cartels are the same forces that bring about collusive combinations in restraint of trade in this country, aren't they?

Dr. KREPS. Yes; I think so, and the major differences I would say would be that abroad documentation is much more easily secured because these agreements are enforceable, if not contrary to the common law in Great Britain or contrary to bonos mores in Prussia and Germany. In this country there has been a law on the statute books; while I am by no means an authority on the enforcement of that law, it is my impression that the majority of competent observers agree that the law has been honored in its nonenforcement rather than in its complete enforcement.

The CHAIRMAN. Did I understand you to draw the final conclusion that this movement led in the last analysis to the establishment of the totalitarian government?

Dr. KREPS. It might.

The CHAIRMAN. You didn't offer that, then, as a conclusion?

Dr. KREPS. No. The cartel by its very nature tends to break up particularly when a period of prosperity comes along; the emergency is past and good old human nature goes to work. Producers want to exceed their quota; they want to sell a little more for one reason or another. The cartel breaks or the producers say, "Well, I will sell out," and you get combination, increasing combination, in order to minimize risks and stabilize the industry. But that very process of huge combination usually cannot avoid being watched by governments without a great deal of care.

The CHAIRMAN. Most of these cartels of which you have testified this afternoon were privately organized, as we use that phrase, were they not?

Dr. KREPS. That is correct.

The CHAIRMAN. And the Government participation was in only a very few?

Dr. KREPS. That is correct.

The CHAIRMAN. Now, to what extent, by and large, has government by law made possible the development of the cartels? You referred to one law in England, the Impost Act of 1932, I think, which according to one authority, whom you quoted made possible, the development of cartelization in Great Britain, and then you referred to some other cases in which cartelization was compelled by statute?

Dr. KREPS. Yes.

The CHAIRMAN. Now, by and large, what is your conclusion?

Dr. KREPS. There is no simple answer. I would say that governments that watch out for the public interest with great care will tend to encourage the forces, the rather natural forces, that disrupt cartel agreements, and would tend to stay somewhat the process particularly of financial combination.

In other words, then we might get only that size of unit which productive efficiency might demand, which is a size somewhat different from that which is sometimes financially welded together.

Governments that are not so alert and particularly governments that might be inspired by somewhat different philosophy, say one in which the leaders believe in economic planning, will welcome this type of voluntary economic planning, which of course is what a cartel is, economic planning by businessmen on a national and international scale, and will see in it a device which they can utilize effectively to increase planning in that society.

The CHAIRMAN. So that actually, so far as scientific fact is concerned there is no difference in principle between the economic planning of a privately organized cartel and the economic planning under N. R. A., for example?

Dr. KREPS. None.

Dr. LUBIN. I want to disagree, Mr. Chairman.

The CHAIRMAN. With whom?

Dr. LUBIN. The witness. I think the fundamental difference lies in the aims you are trying to serve. I think your national and your international cartel is economic planning for a particular purpose, namely, the welfare of the people who control the cartel, as opposed to a type of planning which may have as its end, lower prices, greater distribution of goods, the higher standard of living for the nation as a

whole, and I can see where that type of planning would conflict definitely with the type of planning that goes with a national or international cartel where you are not concerned with your consumer at all, your consumer of the maximum possible under the conditions under which you operate.

Dr. KREPS. I was assuming the Chairman was asking not the motive but mechanism which is essentially the same.

The CHAIRMAN. You understood me correctly. Now let's get back to the economic planning which is involved in an organization of private cartels. It is scientifically the same as economic planning which is involved in an international agreement like that which controls rubber?

Dr. KREPS. Yes. As you note the provisions, the penalties, methods of enforcement, were in essence the same for the international rubber agreement and the tanker pool.

The CHAIRMAN. But the distinction between a cartel or an economic plan entered into by private interests in a private cartel, and the economic planning of a combination like the rubber agreement, or the sugar agreement, or even the N. R. A., is that some spokesman for the general public participated in the second, but not in the first, is that correct?

Dr. KREPS. Sometimes. There have been instances in which there was governmental participation and nonetheless no consumer representation. The potash agreement, which I placed in the record, has no provision for consumers in the agreement as such, although it does in the cartel in Germany.

The CHAIRMAN. But nevertheless the Government spoke for the people at large; whether it actually gave consideration to the interests of all groups of people may be another question.

Dr. KREPS. That is what I wanted to point out.

The CHAIRMAN. Are there any other questions to be asked of the witness? It is now 4:30. I think Senator King asked me before he went if we would conclude this afternoon with your testimony. Who are your witnesses tomorrow?

Mr. SCOLL. Mr. Kelley of the Anaconda Co.

The CHAIRMAN. Is Mr. Kelley here now?

Mr. KELLEY. Yes.

The CHAIRMAN. If there is no objection the committee will stand at recess until 10:30 tomorrow morning.

(Whereupon, at 4:30 p. m., a recess was taken until Tuesday, January 16, 1940, at 10:30 a. m.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TUESDAY, JANUARY 16, 1940

United States Senate,
Temporary National Economic Committee,
Washington, D. C.

The committee met at 10:40 a. m., pursuant to adjournment on Monday, January 15, 1940, in the Caucus Room, Senate Office Building, Senator William H. King presiding.

Present: Senators King, acting chairman, and O'Mahoney; Representative Williams; Messrs. O'Connell, Pike, and Brackett.

Present also: Joseph E. Sheehy, Federal Trade Commission; Hugh B. Cox, Department of Justice; M. Quinn Shaughnessy, Securities and Exchange Commission; Theodore J. Kreps, economic adviser; Samuel Moment, economic analyst; and David E. Scoll, counsel to the committee.

Acting Chairman King. The committee will please come to order. Who is your first witness?

Mr. Scoll. Senator, before I introduce the first witness I would like to make a brief statement for the record. To illustrate the cooperation in industry which Dr. Kreps discussed yesterday the staff of the committee will now present a general picture of the copper industry. The evidence, which will be introduced through representatives of the industry, will review in a general way the various cooperative programs by which the industry has endeavored to meet its major problems from 1918 until the present. These problems relate to production, prices, and methods of marketing. The programs which will be reviewed cover the Copper Export Association, Inc., and Copper Exporters, Inc., which were organized under the Webb-Pomerene Act of 1918, an act which permits combination in export trade; the curtailment agreements of 1930 and 1931; and the international production-control agreement of 1935 to 1939. These programs are interesting and important not only because of their effects in the export trade, but also because of their indirect effects within the United States on prices and production.

The staff of the committee which has prepared the material for this hearing has been fortunate in securing wholehearted cooperation from the copper industry. No file searches were made. The material to be offered has been assembled from records already in the possession of Government agencies and from data which have been voluntarily furnished the staff by the copper companies acting through the Copper Institute.

I would like to call Mr. Kelley.

Acting Chairman King. Do you solemnly swear the testimony you shall give in this hearing shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. Kelley. I do.

TESTIMONY OF CORNELIUS F. KELLEY, PRESIDENT, ANACONDA COPPER MINING CO., NEW YORK, N. Y.

Mr. SCOLL. Will you tell the reporter your name?

Mr. KELLEY. My name is Cornelius F. Kelley.

Mr. SCOLL. And you are president of the Anaconda Copper Mining Co.?

Mr. KELLEY. I am.

Mr. SCOLL. To give a little background for this discussion, Mr. Kelley, will you describe in a general way what the Anaconda Copper Mining Co. is?

Mr. KELLEY. The Anaconda Copper Mining Co. is a corporation organized under the laws of the State of Montana. Originally its operations were confined to mining, smelting, and incidental activities in that State. A good many years ago it started out on a policy of expansion, and finally it became interested in mining properties in various parts of the United States. Realizing the necessity for providing an adequate supply of raw material, it also acquired properties outside the United States, principally in Mexico and the Republic of Chile.

It likewise pursued a policy of integration and acquired fabricating facilities in order to secure an outlet for its metal products—fabricating facilities in various parts of the United States and in Canada. It likewise engaged in export trade. So it is, in fact, an operating company and a holding company to the extent that it owns stocks in various subsidiaries, probably more than 20 companies that are subsidiaries.

Mr. SCOLL. Your mines, I believe, are located in Montana and in South America?

Mr. KELLEY. The mines of the company are located in this country, principally in the State of Montana.

Mr. SCOLL. And in South America?

Mr. KELLEY. In South America they are located in the Republic of Chile.

Mr. SCOLL. I believe you mentioned that you also smelt the ore. Where are your smelters located?

Mr. KELLEY. We are engaged not only in smelting our own ores, but also to a certain extent in the custom smelting business. Our smelters are located, the largest in Anaconda, Mont. Through a subsidiary, the International Smelting & Refining Co., we operate a smelter at Tooele, Utah. We also operate a smelter in Arizona.

Mr. SCOLL. Where do you refine the copper?

Mr. KELLEY. The domestic copper is refined at Great Falls, Mont., and at Raritan, N. J. The product of South America, the product of the Chile Exploration Co., the Chuquicamata mine, is in a refined state when it comes through the primary processes, as that is an oxidized ore body and does not need to be smelted. The Andes Copper Mining Co. also produces part of its product as electrolytically refined copper.

Mr. SCOLL. And you mentioned that you also fabricate copper.

Mr. KELLEY. We do.

Mr. SCOLL. What products do you manufacture, and where?

Mr. KELLEY. We manufacture, I think, a complete line of copper and brass products through a wholly owned subsidiary, The American

Brass Co., and an almost complete line of wire and cable products through a not wholly owned subsidiary but an affiliated company, the Anaconda Wire & Cable Co.

PRINCIPAL COPPER PRODUCERS: THEIR INTEGRATION AND ORGANIZATION

Mr. SCOLL. At this time, Senator, I would like to read to the committee a list of the principal copper producers of the United States, which list appears in the Year Book of the American Bureau of Metal Statistics of 1938, and as I read through the list of producers, Mr. Kelley, would you be kind enough to tell the committee, from your knowledge, which of them are subsidiaries of other companies, as far as you know?

First of all, we have the American Smelting & Refining Co.; Anaconda Copper Mining Co.; Calumet & Hecla Consolidated Copper Co.; Champion Copper Co. I believe the last is a subsidiary of one of the others, isn't it?

Mr. KELLEY. Not to my knowledge. I think it is a very small and comparatively unimportant company.

Mr. SCOLL. Consolidated Coppermines Corporation; Copper Range Co.; Howe Sound; Inspiration Consolidated Copper Co.

Mr. KELLEY. All of the companies that you have indicated down to this I think are wholly independent companies. The Inspiration Co. is not a subsidiary of Anaconda, but Anaconda has a stock interest in the company amounting to about 28 percent of the shares.

Acting Chairman KING. That company operates in Arizona?

Mr. KELLEY. In Arizona, Senator.

Mr. SCOLL. The Kennecott Copper Corporation; Magma Copper Co.; Miami Copper Co.; Mountain City Copper Co.

Mr. KELLEY. The Mountain City Copper Co. is a subsidiary, although not wholly owned, of the International Smelting Co., which in turn is a wholly owned subsidiary of Anaconda.

Mr. SCOLL. The National Tunnel & Mines Co.

Mr. KELLEY. That likewise is an affiliated company.

Mr. SCOLL. North Butte Mining Co. That is a small mining company?

Mr. KELLEY. That mining company I think is no longer in active operation.

Mr. SCOLL. Ohio Copper Co. Is that in active operation, do you know?

Mr. KELLEY. No; that is out.

Acting Chairman KING. That failed a couple of years ago, didn't it?

Mr. KELLEY. Yes.

Acting Chairman KING. With other mining companies?

Mr. KELLEY. Yes.

Mr. SCOLL. Phelps Dodge Corporation; Quincy Mining Co.; Shattuck Denn Mining Corporation; Tennessee Copper Co. I believe Tennessee and Miami are sometimes referred to as the Lewisohn group of mines, are they not?

Mr. KELLEY. That is right.

Mr. SCOLL. And the Walker Mining Co.

Mr. KELLEY. The Walker Mining Co. is an affiliated company of Anaconda through its stock ownership by the International.

Mr. SCOLL. So that leaves, roughly, between 12 and 13 active operating companies today in the United States.

Mr. KELLEY. I haven't counted them, but whatever the list indicates. Some of these companies have ceased to operate.

Mr. SCOLL. Now turning to the foreign producers, that is the mining companies, this list of the American Bureau of Metal Statistics of 1938 shows the Andes Copper Mining Co.

Mr. KELLEY. That is a subsidiary of Anaconda. Anaconda owns about 98½ percent of the shares of that company.

Acting Chairman KING. Operating in Chile?

Mr. KELLEY. Operating in Chile.

Mr. SCOLL. The Braden Copper Co.

Mr. KELLEY. The Braden Copper Co. is a subsidiary, I believe, of the Kennecott Copper Corporation.

Mr. SCOLL. Cerro de Pasco Copper Corporation.

Mr. KELLEY. It is an independent.

Mr. SCOLL. That is an independent also in Chile?

Mr. KELLEY. Operating in Peru.

Mr. SCOLL. The Chile Exploration Co.

Mr. KELLEY. The Chile Exploration Co. is a subsidiary company of the Anaconda. The Chile Exploration Co. is wholly owned by the Chile Copper Co., and the Chile Copper Co. is 98½ percent owned by Anaconda. When I say 98½ percent, I mean approximately.

Mr. SCOLL. Union Min. du Haut Katanga.

Mr. KELLEY. That is a Belgian company, the majority of whose shares are owned by the Belgian Government nd it operates in the Belgian Congo. It is usually referred to as Katanga.

Mr. SCOLL. The Matahambre Mines.

Mr. KELLEY. Matahambre Mines operate in Cuba and the stock ownership is held by the American Metal Co., an American corporation, although not wholly owned.

Mr. SCOLL. The Mufulira Copper Mines, Ltd.

Mr. KELLEY. Mufulira is one of the Rhodesian copper mines that operate in Northern Rhodesia.

Mr. SCOLL. Rhokana Corporation.

Mr. KELLEY. Rhokana is likewise a Rhodesian mining company.

Mr. SCOLL. Roan Antelope Copper Mines.

Mr. KELLEY. That is a Rhodesian mine.

Acting CHAIRMAN KING. Are those English owned?

Mr. KELLEY There is a certain community of interest between all these companies through the original concessionaires, but they are largely British owned and British controlled and British dominated entirely.

Mr. SCOLL. The Otavi Mines & Railway Co.

Mr. KELLEY. That is a small mine in Africa.

Mr. SCOLL. Are there any other foreign producers that you can think of at the moment?

Mr. KELLEY. The Canadian producers you haven't mentioned.

Mr. SCOLL. Outside of Canada? I was thinking of Bor.

Mr. KELLEY. Bor is a copper company located in Yugoslavia, formerly that part of it that was known as Serbia, and is quite an important European producer.

Mr. SCOLL. And I believe there is also Rio Tinto?

Mr. KELLEY. Rio Tinto is in Spain, an old company that operates on a rather limited scale. There is also the Bolidnen Mine in Sweden, which is rather an important copper and gold mine.

Mr. SCOLL. You were going to mention the Canadian producers.

Mr. KELLEY. Mansfield is the other European producer that I recall. That is a very old copper producer located in Germany, Saxony, I think, and is largely subsidized by the German Government, as its products could not be made otherwise upon an economic basis.

Mr. SCOLL. It is not much of a factor in the international situation, is it?

Mr. KELLEY. No.

Mr. SCOLL. Now you were going to mention the Canadian producers.

Mr. KELLEY. Well you asked me if I knew of any other foreign ones. The principal Canadian producers are, of course, the International Nickel Co., the Noranda Mining Co., Hudson Bay, Sherritt Gordon, and Granby.

Mr. SCOLL. I would like to offer this list of the American Bureau of Metal Statistics showing principal copper producers and the disposition of their copper for the United States, Canada, Mexico, and other foreign countries.

We omitted Mexico.

Mr. KELLEY. The principal producer in Mexico, I think, is the Cananea Consolidated Copper Co., which is a wholly owned subsidiary of the Greene Cananea Copper Co., which in turn is about 98½ percent owned by Anaconda. There are other copper producers in Mexico, but that is the most substantial one, and the only one which I recall at the moment, of importance.

Mr. SCOLL. I offer the list in evidence.

Acting Chairman KING. It may be received.

(The list referred to was marked "Exhibit No. 2088" and is included in the appendix on p. 13383.)

Mr. SCOLL. Throughout this hearing we will be talking about the functions of smelters and refiners and the importance of secondary copper and the different types of copper, such as electrolytic, and standard, so I wish you would describe briefly the process of converting copper ore into copper metal.

Mr. KELLEY. That covers quite a field. Usually copper ores as found, generally speaking throughout the world, may be divided as to their mineralogical character into oxide ores and those that are known as sulphide ores. By far the greater production of copper comes from the sulphide-ore bodies. The sulphide mines may be divided generally into what are known as porphyrics, or mines where the copper mineral is disseminated through the rock in small particles and vein mines where the sulphide ore is found in veins or ledges that descend from somewhere approximately near the surface of the ground down to remote depths. Another type of underground mine is where the ore, instead of occurring in veins, occurs in irregular bodies—in masses—usually as replacements in limestone formations.

The reduction of these ores to metal occurs through three processes. Those processes are known as milling or concentrating. This is the first step in the recovery of the metal. The ore is taken to concentrators or mills, ground into fine particles, and put through a process of water recovery, either by gravity or by flotation. The product of the mill is usually taken to the roaster where the sulphur is driven off and

the product comes out as what is known as a calcine. The calcine is taken to the furnace where it is reduced to a matte, and that is taken to a converter where it is blown up into what is known as blister copper. That is the crude copper and contains, in addition to the copper, whatever bullion values, such as gold and silver, become imprisoned in that process. The blister copper is taken to a refinery, usually an electrolytic refinery, where through a process it is refined and comes out as electrolytic copper.

Mr. Scholl. What is commonly meant by the terms "low cost" and "high-cost" producers?

Mr. Kelley. That I wouldn't know. It depends, to my mind, a good deal on how the books are kept. By that I mean we have in the copper business no standard form of accounting. There is no unanimity of opinion or practice among the larger copper companies as to their methods of bookkeeping, and by that I mean their methods of charging developments to capital account, charging them against operations, writing off the organization cost or the valued cost of the ore bodies, so that in order to arrive at a low cost or a high cost there are a great many factors to be taken into consideration. Generally speaking, I should say a low-cost property is one that can make copper at a cost lower than a high-cost property.

(Senator O'Mahoney assumed the Chair.)

Senator King. There are very few mines that produce exclusively copper, are there not? Utah Copper is one where you have to mine 2,000 pounds of waste in order to get just 2 or 3 pounds of copper.

Mr. Kelley. If I may revert for a moment to this question of cost, I would like to suggest this to the committee. There have been three official determinations of the cost of producing copper in the United States, to my knowledge. In those cases these discrepancies in bookkeeping were adjusted so that the governmental agencies which investigated the industry endeavored to arrive at a common cost based upon a common method of accounting. The first inquiry was made by the Federal Trade Commission in 1918. The second was made by the Tariff Commission in 1928, I think, and the third was made under the direction of N. R. A. in 1933 or 1934.

Mr. Scoll. Now, Mr. Kelley, doesn't ore and the manner of its occurrence also have some bearing on the cost of production?

Mr. Kelley. Very certainly.

Mr. Scoll. And the so-called porphyry bodies, at least some of them, are commonly referred to as low cost producers, are they not?

Mr. Kelley. I wouldn't say that that was true. Generally speaking, Mr. Scoll, that distinction might be made, but some porphyries are rather high cost properties and some vein mines or underground mines are low cost. It depends on the character of the particular mine.

Senator King. Is it not true that in most copper producing properties, copper is not produced exclusively but there may be a little gold, maybe a little silver, a little lead or zinc or a little iron ore, so that it is almost impossible to determine just how to allocate the cost of the production of an ore?

Mr. Kelley. That is true, Senator, and it has given rise to a considerable controversy among accountants themselves as to whether the common practice of crediting to the cost of producing copper the entire output of metal, whatever it may be from the ore, to the copper

or whether it should be apportioned among the different metals coming out, should be followed. Your statement is likewise true that generally speaking, and particularly in the United States and Canada, copper is usually accompanied by other metals.

(Senator King assumed the Chair.)

Acting Chairman KING. Isn't it a fact that many of the mines that produce copper, if copper were the only metal in the ore, couldn't operate at all?

Mr. KELLEY. That is true.

Acting Chairman KING. The cost would be too great.

Mr. KELLEY. That is true.

Acting Chairman KING. I referred to the Utah Copper. My recollection is that the production of copper is about 1 percent.

Mr. KELLEY. It is about 1 percent, which would be 20 pounds to a ton.

Acting Chairman KING. They have to move a veritable mountain in order to extract that small quantity, 1 percent.

Mr. KELLEY. It is a great engineering and technological accomplishment.

Acting Chairman KING. It isn't mining so much as it is an industrial activity.

Mr. KELLEY. That is right.

Mr. SCOLL. In Africa, Katanga, for instance, is usually referred to in the trade as a low cost producer, is it not?

Mr. KELLEY. Yes, the cost of Katanga has been estimated at various times; they don't publish cost figures, but undoubtedly they could make copper at a low cost from an economic standpoint.

Mr. SCOLL. Their ore is a porphyry occurrence?

Mr. KELLEY. They have both. They have underground mining and open pit mining.

Mr. SCOLL. Rhokana and Roan?

Mr. KELLEY. In Rhokana and Roan the ore occurs in great ledges and those are underground mines, as is also the Mufulira.

Mr. SCOLL. I don't want to question you too closely about it because it is strictly within Mr. Stannard's province, but Kennecott is frequently referred to, is it not, as a low cost producer in the trade?

Mr. KELLEY. I would prefer if Mr. Scoll would direct his questions regarding Kennecott to Mr. Stannard, the president of Kennecott, who is far more intimately acquainted with them than I.[1]

Acting Chairman KING. I think it would be well to pass that by. Where you have direct evidence we won't take hearsay.

Mr. SCOLL. Who are referred to as the custom smelters?

Mr. KELLEY. The custom smelters, generally speaking, are smelters that are owned by corporations that are more particularly engaged in smelting and refining than in mining, although some mining companies like Anaconda are both direct miners and operate custom smelters.

Mr. SCOLL. Why are they called custom smelters?

Mr. KELLEY. I don't know where the term originated, but historically speaking, the art of smelting was one that was little known in the early mining history of this country.

The cost of erecting smelters was very considerable, and mines were usually in those days operated in very small units. In the reduction of ores, it is desirable to have a balanced charge, and,

[1] For testimony of E. T. Stannard, president of Kennecott Copper Corporation, see infra, pp. 13219-13265.

therefore, of necessity and as a matter of convenience, the custom grew up in the industry of raising capital to erect smelters that would serve a mining district or a number of mines, and the ownership of the mines that ship ore to the custom smelter is quite distinct from the ownership of the smelter itself. They are called custom smelters because the miner ships his ore there, the metal content is bought upon a formula, the metal becomes the property of the smelter, and from there is taken on, refined, and sold by the smelter.

Mr. Scoll. To make it a little more specific, the marketing problems of a producer like Anaconda are quite different, are they not, from those of an organization like the American Smelting & Refining Co.?

Mr. Kelley. Yes.

Mr. Scoll. As far as copper is concerned.

Mr. Kelley. Quite different.

Mr. Scoll. Would you elaborate that a little?

Mr. Kelley. Very briefly, the situation is this: In the case of a producer carrying his operation through from mining to the finished metal, and then selling it, he has the margin between the cost of production and whatever he sells his metal for. In the case of the custom smelter, the margin is the difference between what the smelter pays the miner for his metal, and what the smelter is able to sell if for, and, therefore, this situation which I think you wished explained, arises: The custom smelter having a very narrow margin, and buying ore from day to day, or metal from day to day, is not in a position to carry its metal. They must sell it—or endeavor to sell it—as rapidly as they acquire it, irrespective of market conditions; otherwise if they went long or short, they would be speculating in the market, and that as a general thing they don't desire to do.

Acting Chairman King. Isn't it a fact that a mine producing one ore, for instance, say, copper or silver or lead, no matter how valuable the product was, could scarcely afford to construct a smelter unless there were immediately a considerable number of mines that produced what might be called the byproducts or the necessary fluxing material; so that it would justify the treatment of the ores in the immediate vicinity in which they were mined?

Mr. Kelley. Unless the operation was very large, Senator, that is true.

Acting Chairman King. In the smelters they have to assemble ore in order to treat economically from various sections, from mines that may be remote in order to get the necessary iron and fluxing materials, limestone, and so on, in order to make a proper fluxing product.

Mr. Kelley. That is right. In some cases, even, the smelter pays the miner a premium and smelts his ore for nothing in order to get the essential basic elements required.

Mr. Scoll. How many custom smelters are there operating in the United States today, to your knowledge?

Mr. Kelley. I think the custom smelting business in the United States is controlled by the American Smelting & Refining Co., the Nichols Copper Co., which is a subsidiary of Phelps Dodge, by Anaconda and its subsidiaries, and by the American Metal Co.

Mr. Scoll. So there are only four.

Mr. Kelley. Four or five major companies.

Mr. Scoll. The next step in the process is refining. How many refinery operators are there?

Mr. KELLEY. I think the American Smelting & Refining Co., the Anaconda Co., the Phelps Dodge Co.—those are the principal refiners, and American Metal.

Mr. SCOLL. One of the factors in determining market conditions of copper, I believe, is secondary copper. Isn't that true?

Mr. KELLEY. Yes.

Mr. SCOLL. Now, that includes secondary copper both as metal, and secondary copper which is locked up in alloys.

Mr. KELLEY. That is right.

Mr. SCOLL. Where does secondary copper come from?

Mr. KELLEY. Except to a very limited extent, copper is really never destroyed, and ultimately comes back into the market from the scrap of buildings, trolley lines, automobiles, and various other appliances where it is originally put. That product coming back into the market is called scrap, or secondary metal, and in this country has become a very important factor in the copper industry.

Before we leave the question of secondary metal, may I suggest that in 1932, '33, and '34, the ratio of secondary metal to the total amount of metal produced in those years was respectively 35 percent, 42 percent, and 41 percent. So you can see what a very important bearing it has, particularly in times of depression.

Mr. SCOLL. I would like at this time to offer a chart and a supporting table, showing the United States production of primary and secondary copper, 1912–38. This chart was compiled by the staff of the T. N. E. C. from figures of the United States Bureau of Mines.

Acting Chairman KING. Have you seen this chart?

Mr. KELLEY. I think I have. Mr. Scoll has been very courteous and given us copies of most of his charts, but I don't know which one it is.

Acting Chairman KING. Just examine it and see whether you identify it.

Mr. KELLEY. Yes, we have seen that chart.

Acting Chairman KING. Have you any comment to make?

Mr. KELLEY. No, I think it shows graphically what Mr. Scoll has in mind.

Mr. SCOLL. To summarize what is on this chart, it shows that the trend of production in scrap has had an increasing importance since 1912, that in 1938 secondary metal was approximately 40 percent of the total production. I offer it in evidence.

Acting Chairman KING. It will be received.

(The chart referred to was marked "Exhibit No. 2089" and is included in the appendix on p. 13385.)

Mr. SCOLL. The process of fabricating the metal is one of converting it into shapes, such as bars, ingots, sheets, and so forth, is it not?

Mr. KELLEY. No, that is called casting. The primary casting of copper occurs at the refinery. The various shapes, ingot, cake, and wire bar, are then shipped out to mills where the process of fabrication or manufacture is undergone.

Mr. SCOLL. And those mills are the ones which produce the copper articles of trade?

Mr. KELLEY. Yes.

Acting Chairman KING. Before you leave that, I wish, Mr. Kelley you would state the fact—I think it is a fact—that many of the ores which are being mined now could not be mined and were not mined

several years ago because they did not have the chemical or technological or mechanical process by which they could profitably mine it. I have in mind a number of developments by reason of which you may extract copper now from what might be called ores that they could not have done a number of years ago. Show the fact that the mining industry has made some progress by reason of the technological, chemical, mechanical devices which have been brought into operation during the past few years.

Mr. KELLEY. We think that it is a fair statement, perhaps, to say that no industry has made a greater technological advance in the last 30 years than has the copper-mining industry. It is a fair statement to say, not only through that process and the advance in the art of producing ores have we lowered the cost very much of producing the metal, but from a national economic standpoint it is equally interesting that there has been added an enormous quantity to the available reserves of the Nation and of the different countries where copper is produced.

I have a very interesting paper that covers that subject more fully than perhaps you wish me to, and it is available if counsel cares to introduce it in the record. Generally speaking, the recovery of copper metal from ores capable of being beneficiated has during the last 30 years been increased from approximately 70 to 75 percent of the metal content, to 90 to 95 percent, principally through the development of the art of flotation, which is part of the recovery process.

Acting Chairman KING. So that that may get into the record, that means by the soap bubble, so to speak, you can arrest those infinitesimally small particles of copper that otherwise would go off with the waste.

Mr. KELLEY. That is true. Originally the concentration of ores was a gravity process, in which the gangue was washed away from the sulphide particle. Through the introduction of flotation into a cell that is aerated there is an affinity between the sulphide particle and various reagents, and by that, the very small particle of sulphide ore is carried to the surface with a bubble, and recovered and skimmed off as a froth. That has increased, as I say, the recovery from sulphide ores approximately 20 percent or more.

Acting Chairman KING. I wish you would make comments upon the processes which were developed by Mr. Jackling and Governor Dern, of my State, by reason of which the infinitesimally small particle of gold in ore, which otherwise was barren, have been arrested and conserved.

Mr. KELLEY. That is a fact, Senator, but again may I refer you to Mr. Stannard. I think he can answer it better.

Acting Chairman KING. All right. Did you finish what you wanted to say?

Mr. KELLEY. I think so. I showed that the increase in the recovery of metal-content from the ore will reduce the cost approximately 3 cents a pound on the average. Now, the price has not increased; on the contrary, the price has likewise on the average decreased, so that the consuming public has received the benefit of the technological advance.

Acting Chairman KING. And those technological developments have made obsolete smelters. I know in my State quite a number that cost in the aggregate millions of dollars——

Mr. KELLEY (interposing). More particularly the concentrators. We had a very heavy obsolescence charge which we have written off in the industry.

Mr. SCOLL. Can you state from your knowledge, Mr. Kelley, which of the producing companies own interests in fabricator companies?

Mr. KELLEY. In the United States?

Mr. SCOLL. In the United States.

Mr. KELLEY. Anaconda owns fabricating plants.

Mr. SCOLL. That is the American Brass?

Mr. KELLEY. American Brass Co., and the ownership of stock in the Anaconda Wire & Cable Co.; Phelps Dodge I believe has fabricating subsidiaries; Kennecott has a fabricating subsidiary, and the American Smelting & Refining Co. has a stock ownership in fabricating companies.

Mr. SCOLL. Perhaps I shouldn't ask you this question, but do you have any idea how much of the fabricating capacity of the United States is owned by producing companies?

Mr. KELLEY. I should say approximately 75 percent of the primary fabricating capacity.

Mr. SCOLL. Do you recall offhand who the so-called independent fabricators are?

Mr. KELLEY. There is a very large list.

Mr. SCOLL. The principal ones.

Mr. KELLEY. Scoville, Bridgeport, Mueller—there are a substantial number. I will furnish a list if you desire.

Mr. SCOLL. Thank you. After the hearing, if you will furnish a list we will file it with the committee. May we have permission?

Acting Chairman KING. You may.

Mr. SCOLL. And at this time I suggest that Mr. Kelley be permitted to file with the committee the paper which he previously prepared on technological improvements.

Acting Chairman KING. It will be received if he desires to offer it.

Mr. KELLEY. The paper I referred to was prepared by Mr. Frederick Laist, who is metallurgical manager of the Anaconda Co., and I think covers the subject that you are interested in very well.

Mr. SCOLL. Will you describe briefly for the record the growth of the Anaconda enterprise, including the acquisition of the various properties that you have referred to?

Mr. KELLEY. I have a chart, which I do not have with me, that would show this very well, and I will be pleased to submit it. Very briefly stated, the Anaconda Co. was organized in 1895 with a capital of $30,000,000. It acquired the International Smelting & Refining Co. in 1914. It acquired the American Brass Co. in 1921. It secured a majority interest in the Chile Copper Co. in 1923, and it controlled Andes from the start and developed that property and brought it into operation in 1928, and through exchange of stock acquired the balance of the outstanding interest up to the extent that I have indicated in Chile, Andes, and Greene in 1929. Today we have outstanding 8,600,000 shares, about $430,000,000 at par.

Mr. SCOLL. Is it correct to state that the Phelps Dodge Corporation and Kennecott similarly acquired mining, smelting, and fabricating units from time to time?

Mr. KELLEY. It is true to state that they have expanded and developed, but the Kennecott, to a limited extent, only, I believe, is in

the smelting and refining business, as they have had that part of their operations done under contract with the American Smelting & Refining Co.

Mr. Scoll. At this time I would like to introduce a table entitled "Anaconda Copper Mining Co., Principal Subsidiaries Classified According to Major Function, 1937." This was prepared by the staff of the committee from the information contained in Moody's Industrials, 1938, and statements filed with the Securities and Exchange Commission.

Acting Chairman King. Have you seen it, Mr. Kelley?

Mr. Kelley. I have not, Senator, but I have little doubt of its accuracy and no objection to its being introduced subject to our being permitted to examine and make corrections, if necessary.

Acting Chairman King. It will be received with that understanding.

(The table referred to was marked "Exhibit No. 2090" and is included in the appendix on p. 13387.)

Mr. Scoll. Copies were submitted to your counsel several days ago.

At this time I would also like to introduce a table showing "Kennecott Copper Corporation, Principal Subsidiaries Classified According to Major Function, 1937," from Moody's Industrials, 1938, and statements filed with the Securities and Exchange Commission.

Acting Chairman King. I understand that a representative of the Kennecott Copper Corporation is here as a witness.

Mr. Scoll. And will receive a copy of this.

Acting Chairman King. It will be submitted to the representative of the company, and if he desires to make any correction, the opportunity will be afforded.

(The table referred to was marked "Exhibit No. 2091" and is included in the appendix on p. 13387.)

Mr. Scoll. Similarly I have a table showing the same information for the American Smelting & Refining Co. compiled from the same sources. A witness from the American Smelting & Refining Co., Mr. Brownell, is going to take the stand, and he will have an opportunity to make corrections, if there be any.

Acting Chairman King. It will be received with the understanding it will be exhibited to Mr. Brownell, and he may make such comments upon the document as he sees fit.

(The table referred to was marked "Exhibit No. 2092" and is included in the appendix on p. 13388.)

Mr. Scoll. Now, I have a similar statement for the Phelps Dodge Corporation, and one for the American Metal Co., Ltd. Neither of those two companies is going to be represented here in the hearing, but this information is a matter of public record, and all we have done is merely to copy from Moody's Industrials. We believe it is accurate.

Acting Chairman King. They will be received, and if before the hearing any comments are desired upon it by representatives of the companies, the companies will be given an opportunity to be heard.

(The tables referred to were marked "Exhibits Nos. 2093 and 2094" and are included in the appendix on pp. 13389 and 13390.)

Mr. Scoll. At this time I would also like to offer a chart and supporting table showing the concentration of production of copper among three companies in the United States for selected years from 1915 to 1937. A copy of this table has already been submitted to counsel for Mr. Kelley, and the supporting table with the chart

likewise. The information on this table, I might explain, is obtained from the American Bureau of Metal Statistics, which is a statistical agency established by the members of the industry some years ago, and I think their figures are entirely reliable.

Acting Chairman King. Mr. Kelley, have you or your representatives of your company seen this table?

Mr. Kelley. Yes; we have, Senator.

Acting Chairman King. Have you any comment to make upon it?

Mr. Kelley. None. I think it probably accurately represents the position of the different companies.

Acting Chairman King. It may be received.

(The chart and table referred to were marked "Exhibit No. 2095" and are included in the appendix on p. 13390.)

Mr. Scoll. I would like to comment by the way of explanation and interpretation, if I may. The chart shows concentration of control with respect to mine production. In 1915, for instance, we notice that approximately 27 percent of the copper produced in the United States was produced by Anaconda, Kennecott, and Phelps Dodge. The rest of it was produced by independents, so-called. We move forward to 1937 and find that the copper produced by Anaconda, Kennecott, Phelps Dodge, accounts for approximately 78 percent of the total United States mine production, and I should emphasize that I am now speaking of mine production only, while roughly 22 percent is produced by the so-called independents.

One of the interesting features of this chart is the increase in the share of the total United States mine production which Kennecott has enjoyed. The chart shows, for instance, that in 1915 Kennecott produced a little less than 1 percent of the United States production, while in 1937 their share was approximately 36 percent, exceeding that of both Anaconda and Phelps Dodge.

Mr. Kelley. No; not both.

Mr. Scoll. I mean of either.

Acting Chairman King. Mr. Kelley, in order to successfully mine copper ores, is it not a fact that there must be not only the highest form of technological development, but smelters erected at great cost and which must be changed frequently, and furthermore is it not a fact that the mines which produce copper are limited and are usually in a small area of our country measured by the vast area in which there may be found other metals and minerals?

Mr. Kelley. Those statements are true.

Acting Chairman King. A small refiner, that is a mine with limited capital, would not be able to develop a large copper mine, particularly if it was low grade; the cost would be almost prohibitive, would it not, and require, at any rate, great capital?

Mr. Kelley. Yes; and that is particularly true of the rich mines, the mines that paid, as the miner says, from the grass roots where the mines were discovered by the pioneer miners in our West and were mined successfully from the time they started until they finally gave out or are still continuing. The mines that have been developed in the latter part of the century, during the last 40 years, have been low-grade mines, deposits the existence of which was known, but the enormous amount of capital required to develop them in the remote places of the earth where they occur made development with any-

thing but a huge concentration of effort, money, and talent impossible.

Acting Chairman KING. Isn't it true that one of the largest copper mines in the United States today is the Utah Copper, which, as indicated heretofore, produces only about 1 percent of copper from each ton of ore mined?

Mr. KELLEY. That is true, and it is the largest mine in the United States.

Acting Chairman KING. Isn't it true that that was known many, many years ago and efforts made to develop it even by Mr. Holden of Ohio 40 years ago, and they failed, and finally through technological developments and flotation processes they have been able to make it a producing mine of considerable value?

Mr. KELLEY. Of great value.

Acting Chairman KING. They had to construct a railroad at the cost of $25,000,000, did they not, in order to get the ore to the smelter or to the mill, and that was one of the initial outlays before the mine could be made productive?

Mr. KELLEY. It took a very large outlay of capital, but even that was inconsequential as compared with what it took to develop the great mines of South America. These ore bodies occur, roughly, in a line about a hundred miles from the seacoast, across a desert, that is the Andes, and the Chuquicamata mine is more favorably situated in the south. We had to bring water; we not only had to furnish transportation in order to reach the mines, but we had to bring potable water and water for operations as much as a hundred miles back in the Andes. Everything that was required to sustain a population of a city of 25,000 to 30,000 people in the case of Chuquicamata had to be provided. A man couldn't exist there 24 hours in its natural environment.

Mr. SCOLL. The actual competition in the copper industry is in the sale of refined copper, is it not?

Mr. KELLEY. Well, I should say, generally speaking, that is true, although there is very active competition in the sale of other brands than electrolytic.

Mr. SCOLL. I wasn't referring only to electrolytic; I meant to include all the commercial forms of copper.

Mr. KELLEY. That is right.

Mr. SCOLL. We have here a list entitled "Principal Sellers of Copper in the United States." The list gives American Metal Co., Ltd., American Smelting & Refining Co., Anaconda Sales Co., Calumet & Hecla Consolidated Copper Co., Consolidated Coppermines Corporation, Copper Range Co., Kennecott Sales Corporation, Adolph Lewisohn & Sons, Inc., Magma Copper Sales Corporation, Phelps Dodge Corporation, and Quincy Mining Co. Those are about all of the principal selling agencies, aren't they?

Mr. KELLEY. They are all, and several of those are of minor importance.

Mr. SCOLL. And I note that their addresses are all 61 Broadway, 120 Broadway, 25 Broadway, 52 Broadway, 14 Wall Street, 40 Wall Street; in other words they are all located within a radius of half a mile in lower New York.

Mr. KELLEY. A half a mile in lower New York when you take the perpendicular distance of some of the buildings is quite a distance.

Mr. SCOLL. Not as long as the elevators are running.

Now most of the business among the sellers is done by telephone, isn't it?

Mr. KELLEY. You mean between buyers and sellers?

Mr. SCOLL. Buyers and sellers.

Mr. KELLEY. Yes.

Mr. SCOLL. I would like to offer for the record at this time a list of the principal sellers of copper of the United States. The source of this is the American Bureau of Metal Statistics, 1938, page 23. The American Bureau, I believe I stated before, is a statistical agency which was set up by the industry.

Acting Chairman KING. Has this exhibit been shown to you?

Mr. KELLEY. No; but I have no doubt of its accuracy. I am familiar with the publication referred to.

Acting Chairman KING. It may be received.

(The list referred to was marked "Exhibit No. 2096" and is included in the appendix on p. 13392.)

Mr. KELLEY. I want to make an addition to my answer where Mr. Scoll said most of the business of buying and selling is done over the telephone; that is true, but it is always followed by written contracts, setting up the transaction.

THE COPPER PRODUCERS COMMITTEE, 1917-1919

Mr. SCOLL. Now let's turn back to the Copper Producers Committee, which I believe was an organization of copper producers during the war. Will you describe briefly the Copper Producers Committee?

Mr. KELLEY. Just prior to our entry into the World War there was set up an agency which, as I remember it, was called the Advisory Council of Defense, the function of which was to assist the Government in making preparations for the war that might eventuate. That agency, or that committee, subsequent to the declaration of war, became the War Industries Board, the Chairman of which was Mr. Baruch. The first step in the formulating of the Copper Producers Committee was a visit from Mr. Baruch and Mr. Dan Willard, who came to New York and told us that the Government wished to make substantial purchases of copper for the Army and for the Navy. This was in the days of preparation. They interviewed the late Mr. John D. Ryan and me.

Mr. SCOLL. Who was Mr. Ryan?

Mr. KELLEY. Mr. Ryan was formerly the president of the Anaconda Copper Mining Co. He resigned that position to become Assistant Secretary of War during the war, and returned as chairman of the Board and occupied that position until his death.

You will remember that during the war copper became practically a munition. At that time the major production of copper in the world was in the United States, and we had produced and shipped tremendous quantities of copper to the allied nations. Like other commodities, but less—and I wish to emphasize that—than any other commodity in its class, the price of copper had increased. At the time that Mr. Baruch and Mr. Willard came to New York, copper was selling above 30 cents a pound. They wished to know at what price copper would be furnished to the United States Government: forty-five million

pounds, twenty for the Army and twenty-five for the Navy, as I remember. Mr. Ryan said he would undertake to canvass the situation and he would use his influence—and that was consequential—to furnish copper to the Government, our Government, at the average price for the preceding 10 years. Mr. Ryan called a meeting of producers, and with the exception of one producer they all agreed to take their share, and 45,000,000 pounds of copper were sold to the United States Government at what figured to be 16.67 cents a pound, while the current price exceeded 30 cents—31¼, to be exact. Shortly after that transaction we became involved. My recollection is that that was in February 1917—that was March 20, 1917, and of course in April we were likewise involved.

In setting up the agencies to handle the situation, the copper producers were requested to form a committee so that the industry could act as an entity, and accordingly the Copper Producers Committee, to which you refer, was formed to deal directly with the War Industries Board, which, in turn, represented not only our Government but the Allied Governments, and the outside industries requiring copper.

Mr. SCOLL. The committee, I take it, included most of the United States producers, did it not?

Mr. KELLEY. All of the United States copper producers were represented.

Mr. SCOLL. What were its functions?

Mr. KELLEY. Its functions were principally to allocate and distribute according to the instructions of the War Industries Board, the production of copper, the entire amount of which was taken over—not taken over in the sense of being bought, as is the case today by the British Government, but the control. The price was fixed. This committee functioned to see that production was maintained, that allocations were made according to the production that was coming out, and that the copper was going into the uses designated by the War Industries Board.

(Senator O'Mahoney resumed the Chair.)

The CHAIRMAN. Allocation was made according to production by the individual producers?

Mr. KELLEY. Yes, and everybody was getting out the most they could; the entire production was taken into consideration.

The CHAIRMAN. So there was no competition among the various producers?

Mr. KELLEY. There was no competition except one of effort.

The CHAIRMAN. Effort to get out as much as possible.

Mr. KELLEY. Right, sir.

Senator KING. At 16 cents a pound.

Mr. KELLEY. No. I said that the 45,000,000 pounds was furnished at 16.7 cents a pound, which was the arithmetical average for the preceding 10 years. When the Copper Producers Committee was formed and the War Industries Board was formed, naturally the question of price arose. It was early announced that it would be the fixed policy of our Government to fix prices, and the President was given the authority to do so. There were a number of interviews or conferences between the War Industries Board and the Copper Producers Committee and the question of price was debated. The copper producers took the position that pending the determination of the question as to what the price was, they would furnish all the copper required and it would

be subject to whatever price should be fixed afterward, and that situation prevailed for several months in the early part of the war.

Senator KING. Prices were fixed at that time during the war on agricultural products, were they not? My recollection is that wheat went up to $2.50 a bushel, perhaps more, and other commodities increased materially in price, and prices were regulated by the War Industries Board and such other agencies as were set up caused by reason of the war.

Mr. KELLEY. That is right.

Mr. O'CONNELL. May I interpose? I am not entirely sure that I am correct, but in the interest of accuracy it is my impression that the power given to the President to fix prices was a power in effect to peg prices if prices went too far out of line, rather than to have a permanent policy of fixing prices.

Mr. KELLEY. I think that is correct. Prices, of course, as well as costs, were undergoing very rapid changes, and there was a wide fluctuation, of necessity, in the situation. The policy of the Government was to peg prices but to peg prices at a level in the case of necessary metals, for instance, that would insure the maximum production. Shall I describe what happened?

The CHAIRMAN. Proceed.

Mr. KELLEY. Following the organization of the Producers Committee, conferences were had with a subcommittee of the War Industries Board. At that time, the price of copper generally was about 27 cents per pound. Our wage scales were based on 27-cent copper. The Army wished about 60,000,000 pounds in one order. The question was "what should the price be"? The producers in conference urged a 25-cent price. The War Industries Board offered a 22-cent price. It was finally compromised through the efforts of Mr. Ryan upon the basis of 23½ cents for a period of 4 months, during which time the Federal Trade Commission was instructed to make a survey of the situation, which they did, and my recollection is that in the month of September 1918, the Federal Trade Commission filed its report. According to the report of the Federal Trade Commission at that time, the actual cost of producing copper without interest but allowing depletion, was $0.1667 per pound, including foreign production. The domestic production we calculate was about $0.1626 a pound.

Senator KING. At the mine or at the mill?

Mr. KELLEY. This is the finished metal at the Atlantic seaboard or at the refinery, wherever it was located.

I do not wish, except that it is entirely agreeable to the committee, to make any controversial statement, but inasmuch as in the munition inquiry where no copper producer was called, and in fact we didn't know it was going on, certain statements were made as a result of misinformation—not intentionally I think—as to the position of the copper producers during the war and the cooperative effort that they extended to the Government, and in that inquiry as my own name happened to be brought in, I would very much appreciate it if the committee would let me very briefly——

The CHAIRMAN (interposing). Controversial matters are usually the most interesting. Perhaps we would be glad to hear it.

Mr. KELLEY. They are to me also. I am likewise Irish.

The attitude of the copper producers as indicated first by a reduction in the initial order of the Government from more than 30 cents to 16 cents, and in coming immediately upon the organization of the War Industries Board to an organization of their industry, was regarded then, and I insist is still, as one of the best, one of the most stimulating things that occurred at that time, because it showed the willingness of American industry to cooperate with the Government in a time of emergency. And rather than be the eulogist of the industry myself, I would like, with your permission, to quote very briefly from the official records of the War Industries Board, from the book that followed, written by Mr. Baruch as Chairman of the Board, and from the work of Professor Taussig, of Harvard, who was the economist on the Board and who was one of the members of the Price Fixing Committee.

Mr. Baruch received the following letter on behalf of 26 of the principal American-owned copper companies. This is from the record of the proceedings:

> Referring to our several conversations on the subject of supplying copper for the Army and Navy, to the letter of the Secretary of the Navy of March 16th and the telegram of the Secretary of War of March 17th, both addressed to you, on behalf of the principal producers of copper in this country we beg to say that of the quantity named for delivery within twelve months, to wit,
>
> Twenty million (20,000,000) pounds for the Navy, and
>
> Twenty-five million five hundred and ten thousand (25,510,000) pounds for the Army, we will furnish our proportion in approximately equal quantities each quarter from April 1917 to April 1918, at the price of 16.6739 cents per pound, delivered in regular shapes at Atlantic Seaboard points.
>
> The price named is the actual average selling price obtained by the United Metals Selling Company, the largest seller of copper, over the period of ten years 1907 to 1916 inclusive, and represents in our opinion the fair average price of all, copper sold by American producers during that time.
>
> We offer the copper at this price notwithstanding our costs for labor, materials, supplies, etc., vary from thirty to seventy-five per cent above the average during the ten year period, because we believe it to be our duty to furnish the requirements of the Government in preparing the nation for war with no profit more than we receive from our regular production in normal times.

This was the letter that Mr. Ryan wrote to Mr. Baruch.

I quote now from Crowell and Wilson, and from Baruch, in their review of the activities of the War Industries Board and the cooperation of the American industry.

> Coming at a time when the feelings of the country were in a state of tension and uncertainty, and when there was anxiety in some quarters as to whether capital and industry would in a wholehearted way support the Government in case of need, or on the other hand would try to take advantage of its necessity by profiteering, the announcement of this offer sent a thrill through all who read it and had an immediate, twofold effect: it started a country-wide wave of enthusiasm and patriotism which had been accumulating but had not before been loosened, and by setting the first example, it virtually gave assurance that, come what might, the business interests of the country were solidly behind the Government.

There was an impression created that the offer of the copper producers was to furnish all subsequent requirements likewise at that price, and there was a controversy. There was some criticism that all subsequent orders were not filled at that price.

I would like to quote from Dr. Butler,

"Copper in 1917," from the official Government publication of the United States Geological Survey.

When further supplies were required, certain members of the Government sought to force continued adherence to the 16⅔-cent price on the ground that the producers had already accepted this price voluntarily.

With respect to this 45,000,000-pound sale, the 1917 report of the governmental bureau had this to say:

As this transaction was represented through the press, it appears to have gained the general impression that all the needs of the Government were to be supplied at the same rate. * * * The adverse criticism to which the producers were subjected appears to have been entirely undeserved, as they evidently never intended to supply all the requirements of the Government at the price named, and indeed it would have been impossible for them to do so if they had so desired and intended.

That is from the Government publication.

Without reading all of this, I do wish to read what Professor Taussig who was one of the price fixers himself, had to say. I quote now from Taussig, "Price Fixing as Seen by a Price Fixer".

From all this mass of data, certain things are evident. The lack of any uniform standard of price fixing is clearly disclosed; as one of the Price Fixing Committee has said, an opportunist policy was followed. A great disparity as between the various commodities resulted. It is clear, also, that the price fixed for copper was practically at the bottom of the scale; surely no commodity about whose supply the Government was so deeply concerned or on which the success of the War program so vitally depended was fixed at so low a price. If iron and steel; coal and coke; heavy chemicals; cotton and wool; and wheat, corn, sugar and meat be classed along with copper, as the absolute War essentials, it is found that the advance in price over pre-War standard allowed to copper was less than half the average advance granted to all these other products. After it was all over, Mr. Baruch, in his official report, referred to the fixing of the price for only a short period at a time in order that valid objections from producers or consumers could be given reasonably prompt effect; and he added:

"No consumer, public or private, nor official of our own or other Government, appeared to object to the (fixed) prices as too high. The fact is the fixed price of copper represented a smaller advance over pre-War normal than that of perhaps any other commodity."

Thank you.

The CHAIRMAN. Mr. Kelley, what was the allegation which you are attempting to refute?

Mr. KELLEY. The allegation, Senator, was that the copper producers and the copper industry sought to profiteer during the war, that they failed to cooperate with the Government, and that at the time the price was fixed by the President at 23½ cents, it was done under pressure, under pressure of a threat to withdraw wholehearted cooperation to the Government in the conduct of the war. That, sir, was the allegation, and the allegation will be found in the hearings of the Munitions Investigating Committee about page 6283, particularly in a memorandum submitted by Senator Clark, of Missouri. The question of Mr. Stephen Raushenbush, counsel for the Munitions Committee——

Mr. SCOLL (interposing). I suggest you read the complete reference into the record, the volume as well as the page. I believe that is volume 22 of the Munitions Hearings.[1]

Mr. KELLEY. It is Part 22, page 6283.

Mr. SCOLL. The last page?

Mr. KELLEY. Yes; to page 6343.

The CHAIRMAN. Unless you have some questions that you want to propound at this particular time, Mr. Scoll, I was about to take a recess. Is that agreeable?

[1] See footnote 1, following page.

Mr. Scoll. Senator, I think it is agreeable.

I have one question with reference to the relation of copper prices to other commodity prices.

The Chairman. That you want to ask now?

Mr. Scoll. We can defer it.

The Chairman. Well, then, if there is no objection, the committee will stand in recess until 2 o'clock.

(Whereupon, at 12:05 p. m., the committee recessed until 2 p. m., of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:05 p. m. upon the expiration of the recess.)

The Chairman. Mr. Scoll, are you ready to proceed?

Mr. Scoll. Yes, sir.

The Chairman. The committee will please come to order.

Mr. Scoll. At this time, Senator, I think Dr. Kreps has some material that he would like to insert in the record in connection with the discussion about the Copper Producers Committee and the War Industries Board.

The Chairman. Do you propose to ask Mr. Kelley to step aside?

Mr. Scoll. I would like to ask Mr. Kelley to step down for a minute and let Dr. Kreps take the stand.

The Chairman. Proceed.

TESTIMONY OF DR. THEODORE J. KREPS, ECONOMIC ADVISER, TEMPORARY NATIONAL ECONOMIC COMMITTEE—Resumed

Dr. Kreps. It was apropos of the inquiry of the chairman this morning concerning the fundamental controversy upon which Mr. Kelley gave us the benefit of his views this morning. In order to complete the record, I would like to say that the controversy began and centered around the interpretation of two excerpts from the printed minutes of the War Industries Board, and without wishing to state anything concerning the various interpretations that are possible, this at any rate will give the committee the basic and originating cause of the controversy.

I read these two short sentences from a Senate Committee Print No. 4, Seventy-fourth Congress, first session, being the minutes of the War Industries Board, August 1, 1917, to December 19, 1918.

The Chairman. When was this printed?

Dr. Kreps. This was printed in 1935.

The Chairman. As part of the munitions inquiry [1] to which Mr. Kelley referred?

Dr. Kreps. Yes.

The two sentences, the two passages, which have given rise to the controversy are as follows: One from the meeting of the War Industries Board, held Tuesday, September 11, 1917, at 10 a. m. in room 1945, the Munsey Building, in which, quoting from page 52 of this document, it is stated:

> The representatives of the copper interests present gave assurances that they would do all they could to assist at whatever price was fixed, but that if a price

[1] Special Committee Investigating the Munitions Industry, pursuant to S. Res. 206, 73d Cong.

below 25 cents per pound were fixed they felt sure that many mines would refuse to sell to the Government, unless forced to do so.

Then a meeting was held the next day on September 12, 1917, and I quote another passage; it appears on the same page of this document:

> Mr. Ryan stated that if 22 cents per pound were fixed as a price for copper, that it would be impossible to obtain the voluntary cooperation of the majority of mine owners. If 25 cents were fixed he assured the War Industries Board that he and the other copper producers present would obtain all the copper of the country voluntarily from all producers and that he would see to it that the copper was properly distributed and the price controlled.
>
> This would likewise cover the 300,000,000 pounds produced outside of the United States.

Those are the two passages that gave rise to the controversy. Then I wish to amplify or to put into the record a complete statistical statement of the price history of copper as opposed to all commodities, and as compared with that of nonferrous metals generally, utilizing 1926 as a base, which is generally utilized as a base at the present time. We find that general prices in 1918 reached a level of 131.3, whereas electrolytic copper prices were at a level of 178.8.

I want to point out that Mr. Kelley's statement this morning is completely accurate, that the rate of rise from 1913 to 1918 was not as great for copper as it was for commodities in general. That, of course, leaves open to question whether utilizing 1913 as a base is justifiable.

The CHAIRMAN. The price of copper was greater in 1917 than it was in 1918?

Dr. KREPS. Yes; that is also true.

The CHAIRMAN. The price was fixed by the War Industries Board in September of 1917, was it not?

Dr. KREPS. Of 1918.

The CHAIRMAN. Of 1918, was it?

Dr. KREPS. No; September '17, that is right.

The CHAIRMAN. So that the figures which you have just read indicate that they reflect a reduction in the price; the price of copper was higher from the outbreak of the war, or at least gradually rose from the outbreak of the war until in September 1917, it was pegged. Isn't that right?

Dr. KREPS. That is right. That gives the complete statistical picture.

The CHAIRMAN. This table which you have in your hand was prepared by whom?

Dr. KREPS. Prepared by the staff of the committee from the figures of the United States Bureau of Labor Statistics.

The CHAIRMAN. Have you shown it to Mr. Kelley?

Dr. KREPS. I am sure Mr. Kelley has seen it.

Mr. KELLEY. I don't think that we have seen this but I don't doubt its accuracy.

The CHAIRMAN. These compilations, of course, from the United States Bureau of Labor Statistics are generally accurate. The table may be entered as part of the record.

Mr. SCOLL. May it be marked as "Exhibit 2097."

(The table referred to was marked "Exhibit No. 2097" and is included in the appendix on p. 13392).

TESTIMONY OF CORNELIUS F. KELLEY, PRESIDENT, ANACONDA COPPER MINING CO., NEW YORK, N. Y.—Resumed

The CHAIRMAN. Will you proceed with the examination, Mr. Scoll?

Mr. SCOLL. One final brief question on the Copper Producers Committee. The records of the committee were turned over to the Copper Export Association, were they not?

Mr. KELLEY. That I do not know. The Copper Producers Committee?

Mr. SCOLL. Yes.

Mr. KELLEY. I have no information, at least I don't recollect.

Mr. SCOLL. In 1918, the Copper Export Association was formed, and I would like to ask you some questions about that association. It was, I believe, a Webb-Pomerene Corporation.

Mr. KELLEY. That is right. May I, before we close the producers part of the story, with the permission——

The CHAIRMAN (interposing). Do you mean clearing up the record under the old War Industries Board situation?

Mr. KELLEY. I just want one more thing to go into the record, which I will read if the committee desires, or if the committee prefers I will merely submit it. It is the final testimonial of the President of the United States, Woodrow Wilson, written on March 1, 1921 just before, as I remember it, his administration terminated.

The CHAIRMAN. If you desire to put it in, it is quite agreeable to us, Mr. Kelley.

Mr. KELLEY. May I read it, or just offer it? I would like to read an excerpt from it.

The CHAIRMAN. Very well, do that and print it in whole. The truth of the matter is, I think this controversy is just a little bit irrelevant to our objectives, but inasmuch as you have opened it I am very glad to have it covered fully, but briefly.

Mr. KELLEY. The summation of this letter, the letter itself, was the result of certain attacks that were made after the war in the House of Representatives.

The CHAIRMAN. May I interrupt you to say, I am cognizant of the fact always that the representatives of any industry who are called before this committee begin by feeling that they are under attack from this committee or its agents. From the very outset of our proceeding the chairman and various members of the committee have tried to make it plain that they are not attacking anybody or any industry, and that they are not investigating anybody with any punitive intent, but that the committee is engaged exclusively upon an effort to find out more about the economic machine than apparently is known either by the leaders in government or the leaders in industry.

Mr. KELLEY. Thank you, Senator O'Mahoney, and I want to assure you that the attitude of yourself and your colleagues has more than given me assurance of the sincerity of purpose as stated by you, and I want to take this occasion also to say that the gentlemen representing the committee who have made the study in cooperation with the industry—I refer to Mr. Scoll, Mr. Moment, Mr. Sheehy—couldn't have been more courteous or more cooperative. We have no feeling that we are here on trial at all. Our purpose is to do what we can to help you and ourselves.

The CHAIRMAN. We appreciate that fact. Now you may proceed to read the extract.

Mr. KELLEY. This letter was addressed by Woodrow Wilson to Mr. Garrett, who I believe at that time was a Representative from Tennessee and chairman of either the House Rules Committee or the Judiciary Committee, and in it the President resented the attacks that had been made upon Mr. Baruch, upon Mr. Ryan, who was representing the copper industry, and made very clear that it was he who, acting upon the recommendations of the War Industries Board, had fixed the price of copper, and, as I interpret the letter, which speaks for itself, he paid a very high tribute to the patriotism, the loyalty of the industry, and these gentlemen, and I think it might properly become a part of the record.

The CHAIRMAN. There being no objection, it is so ordered.

(The letter referred to was marked "Exhibit No. 2098" and is included in the appendix on p. 13393.)

Mr. SCOLL. Now, Mr. Kelley, I show you a list of officers of the Copper Export Association, Inc., which I believe was prepared by Mr. Eckert of the Copper Institute.

Mr. KELLEY. This list, according to my recollection, correctly states the fact.

Mr. SCOLL. It shows that the executive committee was composed of Mr. Simon Guggenheim of the American Smelting & Refining Co.; Mr. John D. Ryan of the Anaconda Copper Mining Co.; Mr. Walter Douglas, Phelps Dodge Corporation; Mr. R. L. Agassiz of the Calumet & Hecla Copper Co.; Mr. James McLean of the Phelps Dodge Corporation; Mr. Murry Guggenheim of the Kennecott Copper Corporation; Mr. C. F. Kelley of the Anaconda Copper Mining Co.; Mr. James MacNaughton of the Calumet & Hecla Copper Co.; Mr. Adolph Lewisohn of the Miami Copper Co.; and Mr. William A. Clark of the United Verde Copper Co.

These gentlemen represented, did they not, the principal copper producers at that time?

Mr. KELLEY. Yes, sir.

Mr. SCOLL. I would like to offer this list for the record.

The CHAIRMAN. It may be received.

(The list referred to was marked "Exhibit No. 2099" and is included in the appendix on p. 13394.)

THE COPPER INDUSTRY'S PART IN SECURING PASSAGE OF THE WEBB-POMERENE ACT

Mr. SCOLL. Now, Mr. Kelley, will you tell the committee what part the copper people played in securing the passage of the Webb-Pomerene Act, and begin, if you will, before the war.

The CHAIRMAN. Let me interrupt to ask the counsel of the committee if the Copper Export Association, Inc., was an association organized under the Webb-Pomerene Act?

Mr. SCOLL. It was.

(The previous question was read.)

Mr. KELLEY. I suppose that your question calls for an explanation of the situation that led up to our effort.

Mr. SCOLL. Yes.

Mr. KELLEY. Well, gentlemen, for many years, the United States, being at that time the principal producer of copper in the world, held a very important position in the export markets of the world. For many years, the United States had increased its production until about 60 percent of the entire copper production of the world was made here.

Mr. SCOLL. What period are you referring to now?

Mr. KELLEY. I am referring to the pre-war period beginning at about the beginning of the present century, and continuing down to the war. At that time, roughly 50 to 55 percent of the total production of copper went into export markets. At that time, also, the export markets, so far as the purchasing of copper was concerned, were largely in the hands of very important groups of metal dealers that had grown up and become important with the development of the metal industry.

That situation arose from the fact that there was very little if any integration in the mining industry during its early development, and the miners in the West knew practically nothing about the commercial end of the business. These very large firms that existed in Europe, like the Metallgesellschaft, Börsonheimer, Aron Hirsch & Son, and Henry Merton, bought the metal in tremendous quantities, and they in turn acted as distributors to the consumers and the manufacturers. There was little if any contact between the American production and the consumers in Europe, and as Dr. Kreps no doubt can verify, there were not only cartels—if you wish to apply the term as broadly as he did—in production, selling, and distribution, but there were also cartels or the equivalent of cartels in buying.

It was the history of the industry that the American producer, due to the magnitude and the concentration of foreign buying, was continually receiving less for his product when sold in export markets than he was realizing at home, and consequently the copper industry early took a position——

The CHAIRMAN. That is a very interesting statement that you have just made, Mr. Kelley, and I am interrupting you in order to emphasize the statement and to get its implications clear. As I understand you, you say that because of the magnitude and the concentration of the foreign producers of copper.

Mr. KELLEY. The foreign purchasers.

The CHAIRMAN. The foreign purchasers of copper?

Mr. KELLEY. The buyers.

The CHAIRMAN. The American producer was getting a small price?

Mr. KELLEY. He was getting a lower price.

The CHAIRMAN. A lower price than he felt he was entitled to receive?

Mr. KELLEY. And a lower price than he was receiving at home.

The CHAIRMAN. In other words magnitude and concentration among the purchasers had the effect of driving down the price which the American producer felt he ought to have?

Mr. KELLEY. Right.

The CHAIRMAN. And of course large units like your own in the United States were among those who felt that the price was too low?

Mr. KELLEY. We felt that we should receive at least as much money for our copper sold abroad, when we were disposing of a natural resource of the United States, as our American customers paid us.

The CHAIRMAN. In other words, the Anaconda Co., which itself is an institution of some magnitude, was feeling adversely the effect of magnitude and concentration among European buyers?

Mr. KELLEY. That is right. Consequently an effort was begun as early—my recollection is it was during the Taft administration—when I discussed this situation with the then Attorney General, Mr. Wickersham, and supported it with statistics. About that time, or a little later, the Clayton Antitrust Act was before Congress for hearing, and my recollection is that at the hearing of the Clayton Antitrust Act, Mr. Ryan, my predecessor, represented the Anaconda Co. and other producers of copper, and appeared and testified to the fact that I have just stated, in support of the proposition that the restrictions of our Antitrust Act should be so modified as to enable exporters, not only of copper, but of all products, to combine in order to match the combined buying power that they were up against on the other side.

No such exception was made in the Clayton Act and consequently the movement started, initiated by an organization of which Mr. James A. Farrell has been the head, called the Foreign Trade Council, to bring this situation to the attention of Congress and the other governmental authorities. The result was an agitation that finally resulted in the passage of the so-called Webb-Pomerene Act.

Mr. SCOLL. May I interrupt for just a moment there, Mr. Kelley? Were the copper people the leaders in advocating the passage of the Webb-Pomerene?

Mr. KELLEY. I wouldn't say that they were the leaders; we were among the groups. There were other groups than copper that were affected; we were one of the groups.

Mr. SCOLL. How early did copper become interested?

Mr. KELLEY. Copper became interested, well, I think when Mr. Ryan and I got into the business and definitely ascertained what was going on. As a matter of fact, we were the first company, I think, that established our own sales agency in Europe.

Mr. SCOLL. That would have been around the turn of the century?

Mr. KELLEY. No; I think that was about 1909 or '10, somewhere along there.

Mr. SCOLL. Mr. Ryan, I believe you mentioned, appeared before various committees, and I would like to supplement what you have just stated with some of Mr. Ryan's remarks to these committees, if I may. At the hearings before the House Judiciary Committee on the Clayton Act, February 9, 1914, Sixty-third Congress, second session, which was reported in Trust Legislation, volume I, serial 7, part 11, page 435, Mr. Ryan said:

> I think that sound, sensible economics will prove to anybody who looks them squarely in the face that we want to take off all restraint and absolutely all the ties, bonds, and fetters from American producers or manufacturers in their foreign trade. I say you should go so far as not only to permit, but to encourage, combinations, agreements, understandings, or anything else on business that is exclusively export business.

Further along, in the same volume, the same page, Mr. Ryan said:

> We produce in this country 75 per cent of the copper of the world, and we sell 55 per cent of all we produce in an unmanufactured form to the rest of the world to manufacture and put in shape for the markets of the world. When we sell that copper in Europe—to Germany, England, and France—we have to sell it to combined buyers. Repeatedly and regularly the dealers or consumers of Europe have combined to force the American manufacturers of copper to unload, expecially at times when business conditions were not good and when a surplus was accumulating. At those times they have almost named their own price, and the result has been that on a business of $850,000,000 in raw copper in 14 years.

from 1901 to 1913, inclusive, $450,000,000 of it was done with foreign countries, mostly in Europe, at a sacrifice of half a cent a pound as against the price secured in the sale of the product to domestic manufacturers. I am speaking now of our own business.

For the committee's information, I should like to cite into the record certain other testimony of Mr. Ryan to the same general effect. I think it is unnecessary to take the time to read the excerpts. That testimony was by Mr. Ryan at hearings before the Federal Trade Commission, which is reported in Federal Trade Commission hearings in re Foreign Trade Extensions, New York, June 3 and 4, 1915, volume II, pages 90 to 112. It is interesting to note that when the Federal Trade Commission made its report on cooperation in American export trade, which I believe was at least partly the basis for the Webb-Pomerene Act, the Federal Trade Commission stated (and this statement may be found in the volume entitled "Report on Cooperation in American Export Trade, pt. 1, 1916, p. 7, published by the Federal Trade Commission):

For years the copper trade of the world has been ruled by a vast German metal-buying organization centering in the Metallbank und Metallurgische Gesellschaft A. G., of Frankfort on the Main. This combination has subsidiary and affiliated companies in Germany, England, France, Spain, Switzerland, Belgium, Africa, and Australia, controls copper and lead mines and smelters in the United States, Mexico, and other countries, and works in agreement with other German metal-buying concerns.

The record, I think, should also note that the Webb-Pomerene Act was passed and approved April 10, 1918.

At this point I should like to introduce a chart entitled "World Summary of Copper, 1912–39."

The CHAIRMAN. Before you present that, let me ask Mr. Kelley to name some of the other principal groups which cooperated in urging the passage of the Webb-Pomerene Act.

Mr. KELLEY. My recollection is the steel industry was one. I think the cotton industry was one of the groups that were largely interested in exports.

The CHAIRMAN. And did Mr. Ryan correctly summarize the attitude of the spokesmen for these groups in urging that act?

Mr. KELLEY. I think so, and I think he wasn't the only witness; there were many others that appeared, but he accurately summarized this situation so far as it affected copper.

The CHAIRMAN. In other words, the feeling of the leaders of American industry who were urging upon Congress the enactment of this law was that the restrictions which are contained in the Sherman Anti-Trust Law and in the Clayton Act intended to prohibit what are called combinations in restraint of trade, or trusts, should be ameliorated so far as foreign trade is concerned.

Mr. KELLEY. That is correct.

The CHAIRMAN. In other words, it was the desire of the spokesman of the copper industry and of these other industries who urged this act upon Congress, that these combinations which are prohibited by law within the United States, should be permitted so far as foreign export trade is concerned.

Mr. KELLEY. Yes, Senator; within the limitations of the act itself.

The CHAIRMAN. Yes.

Mr. KELLEY. Which provided that there should be no combinations or conspiracies which would intentionally or artificially affect the domestic price.

The CHAIRMAN. Yes; and of course when Congress passed the act and when the President signed it, that was a declaration that the legislative and executive branches of the Government concurred in that opinion.

Mr. KELLEY. Correct.

Senator KING. May I make one observation, having taken some little part in the formulation of the Webb-Pomerene Act? There was a growing feeling upon the part of the American people—those in authority, executive and legislative branches of the Government as well as those in business—that we were being subjected to a good deal of competition in foreign countries by foreign countries so that our trade and commerce, our export trade, would be materially reduced unless we could in some way counteract the forces which were being marshaled against us. Therefore it was believed by those in Congress, as well as the public generally, that there should be—using the language of my friend, the chairman—some mitigation of the provisions of the Sherman antitrust law so far as our foreign trade and commerce was concerned, and the formulation of organizations that would engage in foreign trade and commerce.

The CHAIRMAN. To summarize it in a different way, perhaps it might be proper to say that because American exporters, as in the case of copper, had found that they were not getting the price they felt they should get because of the magnitude and concentration of foreign purchases, they came to the conclusion that some similar concentration should be permitted among our exporters in order to enable them to more effectively combat the foreign group.

Mr. KELLEY. May I answer that question by quoting from the findings of the Commission itself, with which the Senator from Utah is entirely familiar? I remember you had something to do with it. The Commission found:

> (1) That other nations have marked advantages in foreign trade from superior facilities and more effective organizations.
>
> (2) That doubt and fear as to legal restrictions prevent Americans from developing equally effective organizations for overseas business and that the foreign trade of American manufacturers and producers, particularly the smaller concerns, suffers in consequence.
>
> The Commission appreciates the importance of foreign trade and realizes the need of enabling American exporters to meet foreign competitors on more nearly equal terms in international commerce. It therefore recommends as one of the necessary steps the clarification of the law so as to permit cooperation among Americans for export trade.

The CHAIRMAN. That is the Federal Trade Commission from which you are quoting?

Mr. KELLEY. That is the findings of the Federal Trade Commission in its report entitled, "Cooperation in American Export Trade."

The CHAIRMAN. Do you remember the date of it?

Mr. HENRY J. WOLFF (counsel, Anaconda Copper Mining Co.). From the same report from which Mr. Scoll read.

Mr. KELLEY. June 30, 1916.

The CHAIRMAN. Proceed, Mr. Scoll.

Mr. SCOLL. At this time I should like to introduce a chart and supporting data entitled, "World Summary of Copper, 1912–39." This chart was prepared by the staff of the committee on information from the Engineering and Mining Journal as to figures for prices; figures for production and consumption from the American Bureau of Metal Statistics; figures for stocks from the United States Bureau of Mines.

The CHAIRMAN. Without objection, they may be received.

(The chart and supporting tables referred to were marked "Exhibit No. 2100" and are included in the appendix on p. 13394.)

Mr. SCOLL. I would like to comment very briefly on it by way of interpretation. We are introducing this chart at this time because it covers the major episodes of cooperation in the copper industry that we are discussing. From time to time it will be referred to as we proceed. We have already referred to the episode which is indicated by the bracket over 1917 to 1918.

COPPER EXPORT ASSOCIATION, 1919–1923

Mr. Kelley, I believe at the end of the war the copper producers had a lot of excess copper on their hands, did they not?

Mr. KELLEY. They did.

Mr. SCOLL. And when the armistice was declared the industry, I believe, was operating at full capacity.

Mr. KELLEY. That is true.

Mr. SCOLL. Now, this excess copper included not only copper in the hands of the producers, but it included stocks that were held by the Government?

Mr. KELLEY. Correct.

Mr. SCOLL. And an indeterminate amount of copper in the form of battlefield scrap. Is that correct?

Mr. KELLEY. Yes, sir.

Mr. SCOLL. So you would say when the Copper Export Association was launched there was a tremendous oversupply of copper on hand both in this country and abroad?

Mr. KELLEY. That is right.

Mr. SCOLL. Now, is that situation related in any way to the fact that there were no quotations of copper prices at the end of 1918?

Mr. KELLEY. That situation was involved in the fact that there were no quotations at the end of 1918; but may I explain?

Mr. SCOLL. If you will, briefly.

Mr. KELLEY. Immediately after the armistice, the copper industry was called to Washington—the representatives.

Mr. SCOLL. Mr. Kelley, I was going to come to that.

Mr. KELLEY. I would like, if it meets with your approval—I have the exact figures on that stock of copper as it existed January 1, 1919, which shows a total of 2,278,000,000 pounds on hand January 1.

Mr. SCOLL. What is the source of those statistics?

Mr. KELLEY. The source of the statistics is, I think they were compiled from authoritative data.

Mr. SCOLL. May I see it?

Mr. KELLEY. Surely.

Mr. SCOLL. Will you submit these statistics as being compiled by the Anaconda Copper Co. or the Copper Institute?

Mr. KELLEY. They were compiled in connection with an article that I prepared and that was published subsequently, and they embodied figures that we obtained when we made the investigation in Europe immediately after the war.

Mr. SCOLL. I was going to get to the investigation a little later. Would you want to introduce it now?

Mr. KELLEY. Just in answer to your question, I would give these figures without comment. We estimated that on January 1, 1919, which was immediately after the armistice, the producers had in crude, process and refined copper about 839,000,000 pounds. The governments, which naturally had overbought during the period of hostilities, had 630,000,000 pounds, and there was in scrap and brass 808,000,000 pounds, or a total of about 2,200,000,000 pounds of copper.

Senator KING. So that the Government was a potential vendor—seller of copper—in that situation.

Mr. KELLEY. It was, and as you remember, if I may answer your question, immediately after the armistice we took up the question of the disposal of the stock of copper which the Government had acquired with the Council of Defense which consisted of five members of the Cabinet; and under the direction of Mr. Baker, Secretary of War, and Mr. Daniels, Secretary of the Navy, we worked out a program of liquidation under which the Government agreed to liquidate its stock with the producers' stock. We allocated to all sales made, two-fifths to the Government, as I recall, in order that that stock might be liquidated in an orderly manner instead of being dumped. We tried to do the same thing with the Governments of Great Britain and France, but as those Governments assured us that they wished to hold their stocks, we were unsuccessful.

Senator KING. Do you recall we had a similar situation with respect to wool stocks, and Great Britain had a very large surplus, as did some of the other belligerents, and the result was that the accumulation here by the Government and by individuals caused the price of wool to go down almost to a vanishing point. We attempted to negotiate with Great Britain and other countries with a view to proper liquidation of the stocks without destroying the market completely.

Mr. SCOLL. I believe you have before you, Mr. Kelley, a copy of a letter to the Attorney General of the United States, dated January 13, 1919, from Gilbert Montague, which transmits a letter of January 13, 1919, from the Copper Export Association, to various members of the copper industry, signed by Mr. John D. Ryan, the president.

Mr. KELLEY. I have such a copy.

Mr. SCOLL. That was the letter—the Ryan letter—was the letter that was sent to various members of the industry, was it not?

Mr. KELLEY. That is right.

Mr. SCOLL. And Mr. Gilbert Montague was counsel for the Copper Export Association at that time?

Mr. KELLEY. Correct.

Mr. SCOLL. I would like to read, if the committee will permit me to do so, a brief portion of that letter.

> After conference among a number of producers, a plan has been agreed upon, resulting in the formation, under the laws of Delaware, of a corporation known as Copper Export Association, Inc., which will act as exclusive agent for the sale of export copper for such producers or operators who sell or control the sale of export copper from the United States as may care to become members. As such agent, the Association proposes to procure orders for export copper at prices named by the Association, to allot such orders among the members pro rata according to the amount of copper each member has available for export, to average the prices monthly to each member so that each member will secure for his export copper every month the same price as every other member and at the same time to leave each member free to sell, ship, and bill his export copper direct

to the foreign purchaser and to maintain, if he so desires, his own selling representatives abroad, subject always to the foregoing provisions in respect of apportioning orders and averaging prices. For greater certainty, reference is hereby made to the Agency Agreement herewith enclosed.

We will get to the agency agreement later.

The portion I read briefly summarizes the form of organization which it was proposed to form, does it not?

Mr. KELLEY. It does, I think, except as a matter of fact, a matter of practice, joint agencies or agencies acting for all of the members actually matured abroad as the result of our trip, instead of a separate agency.

Mr. SCOLL. What this letter represents is the proposal and the plan at that time.

Mr. KELLEY. That is right.

Mr. SCOLL. It was what was intended at the beginning.

Mr. KELLEY. That is right.

Mr. SCOLL. May I offer these for the record?

The CHAIRMAN. The letters may be received.

(The letters referred to were marked "Exhibit No. 2101" and are included in the appendix on p. 13400.)

Mr. SCOLL. Now, in connection with the formation of the Copper Export Association, a committee was sent to Europe, was it not?

Mr. KELLEY. Correct.

Mr. SCOLL. And you were a member of that committee?

Mr. KELLEY. I was.

Mr. SCOLL. And the purposes of the committee are contained, I believe, in a report to the executive committee, with which you are familiar. To save time, I will summarize it. Correct me if I am wrong in any detail.

First, to investigate the form of organization which should be adopted by the association for each country. Is that correct?

Mr. KELLEY. Right.

Mr. SCOLL. Then to ascertain as far as possible the condition of industry in each country, the stock of metal on hand, and the prospects of the approximate future with reference to metal requirements?

Mr. KELLEY. Yes.

Mr. SCOLL. And third, to effect some equitable arrangement under which existing metal stocks, more particularly in England and France, might be pooled either together or separately with stocks held by American producers with a view of liquidating the very large existing surplus in such a manner as to cause as little loss as possible, and under conditions as favorable to a continuation of curtailed current production as it might be possible to work out. Those were generally the aims of the committee?

Mr. KELLEY. Yes, sir.

Mr. SCOLL. Now, in other words, the copper producers were concerned primarily with forming an association to relieve the excess copper stock situation, as well as the price differential which you talked about before. Is that correct?

Mr. KELLEY. Yes. At that particular time, too, you omit a very important thing, and that was the effort which the industry was making to continue production and employ as many people as possible in the communities that needed it.

Mr. SCOLL. This was in early 1919?

Mr. KELLEY. This was in early 1919, and I think you intend to refer to that.

Mr. SCOLL. What did the committee learn and what action was based on its report?

Mr. KELLEY. Well, summarized very generally, the committee learned that the governments, the allied governments, had tremendously overbought their requirements. They learned that in the haste and drive of manufacture for war purposes, scrap had not been utilized as it would under ordinary conditions, and that as a result of that there was impending over the market a tremendous quantity of copper.

We afterward estimated that at about two billion—more than two billion—pounds. We also ascertained and recommended to the organization the best set-up of the agencies for the different countries taking into consideration the laws of each country, and the character of organization that would best fit the different nationals.

Mr. SCOLL. And it was the stock situation that was the reason why the committee was considering ways and means of forming an international copper pool, according to this recommendation?

Mr. KELLEY. Yes.

Mr. SCOLL. What came of that recommendation?

Mr. KELLEY. So far as the United States Government is concerned, they entered into a cooperative liquidating plan with the producers. The British Government assured us that they would not dump their copper; they would consume it gradually, but they did not enter into any formal plan with us. The French Government, the Ministry of Munitions, took the same position as the British; they said they preferred to keep a stock of copper for their Government, rather than sell it.

Senator KING. The dumping of the copper held in the United States by the Government and its agencies as well as by corporations—the dumping of those supplies upon the market—would have destroyed the market and would have closed many mines and would have thrown out of employment a large number of persons engaged in the mining industry, would it not?

Mr. KELLEY. That is right, Senator.

Senator KING. And slowed down smelters and mills and mines and greatly affected transportation and railroads, and so on?

Mr. KELLEY. That is right.

Mr. SCOLL. If you can recollect, were you thinking of government pools or private pools in copper?

Mr. KELLEY. We were thinking about a plan under which the producers of copper could cooperate with the governments which held these very large stocks in a plan of liquidation, rather than of dumping. So it would have been joint.

Mr. SCOLL. And what came of those proposals?

Mr. KELLEY. Nothing, except as I have indicated.

Senator KING. However, the proposal not having been fully accepted, exercised somewhat of a restraining influence to prevent dumping?

Mr. KELLEY. Oh, yes; there was cooperation, though not actually under a plan, except in the case of our Government.

Mr. SCOLL. One of the results of the visit of this committee, however, was the appointment of foreign agents for Copper Export Association, I believe, was it not?

Mr. KELLEY. That is right.

Mr. SCOLL. And correct me if I am wrong, but I think the agents were as follows: London, England, the British American Metal Co., Ltd.; Paris, France, Societe Franco-Americaine des Metaux.

Mr. KELLEY. That is right.

Mr. SCOLL. In Germany, the Kupfer Import Gesellschaft, m. b. h. in Berlin?

Mr. KELLEY. That is right.

Mr. SCOLL. Now the Copper Export Association, when it was finally organized, included most of the copper producers and smelters and refiners in the United States, did it not?

Mr. KELLEY. Yes; I think so.

Mr. SCOLL. There were one or two, I believe, outside—American Metal?

Mr. KELLEY. American Metal did not come in.

Mr. SCOLL. And they were the only substantial producers who were outside?

Mr. KELLEY. That is my recollection at this time.

Mr. SCOLL. Now I will show you a list of the names of members of Copper Export Association, Inc., and nonmembers, which I believe was prepared under your direction. I would like to ask you about these nonmembers who sold their copper through the members of the association. What was their status in the association?

Mr. KELLEY. I beg your pardon, Mr. Scoll, I was looking at this memorandum.

(The last sentence of the last above question was read by the reporter.)

Mr. KELLEY. Well, they occupied the status of members with the exception that instead of being actual members, the selling organizations which disposed of their metal represented them.

Mr. SCOLL. So their copper was controlled by the association—the sale of their copper was controlled by the association?

Mr. KELLEY. That is right.

Mr. SCOLL. Now were there any foreign producers that were not controlled by the United States corporations involved in Copper Export Association?

Mr. KELLEY. Well, there are in this list of members whose copper was sold, although not members, a number of foreign companies; not many, because at that time, Mr. Scoll, the number of companies producing copper outside the United States was small.

Mr. SCOLL. And that was the reason that they were not in, they were not included?

Mr. KELLEY. Yes.

Mr. SCOLL. If for instance Cananea or Boleo were in operation, they conceivably would have been members?

Mr. KELLEY. An effort would have been made to bring them in, or else the project would have been abandoned.

(Senator King assumed the Chair.)

Mr. SCOLL. I would like to offer as an exhibit the names of members of Copper Export Association, Inc., and nonmembers.

Acting Chairman KING. Have you seen this exhibit?

Mr. KELLEY. Yes.

Mr. SCOLL. It was prepared under his direction.

Acting Chairman KING. It will be received.

(The list referred to was marked "Exhibit No. 2102" and is included in the appendix on p. 13402.)

Mr. O'CONNELL. Mr. Kelley, may I ask a question? You indicated that had any substantial producers not come in that the project would have been abandoned. That indicates, I take it, that in the absence of substantially 100 percent participation in an international agreement of this type, it isn't very effective?

Mr. KELLEY. That is correct, generally speaking. It was as a matter of fact one of the very important things that led ultimately to the abandonment of the C. E. A. Shall I elaborate on that?

Mr. O'CONNELL. I think we had better let them proceed.

Mr. SCOLL. I have some questions along that line a little later.

Mr. KELLEY. My attention has been called to an error which I wish to correct, and I was in error. The production that was controlled outside the United States by nonmembers was substantial at that time.

Mr. SCOLL. I was planning to go into that question a little later, Mr. Kelley. Now the method of determining the voting participation in the organization was based, I believe, upon the copper production of each member, was it not?

Mr. KELLEY. That was the basis of the formula.

(Senator O'Mahoney resumed the Chair.)

Mr. SCOLL. I show you now a list entitled "Copper Export Association, Inc., Number of Votes Cast at Annual Meetings of Stockholders," which shows the name of the stockholders and the number of votes they cast from 1919 to 1923. I believe that was prepared by Mr. Eckert of the Copper Institute, under your direction?

Mr. KELLEY. I think it was.

Mr. SCOLL. I would like to offer that list.

The CHAIRMAN. May I see a copy of that? It may be received.

(The list referred to was marked "Exhibit No. 2103" and is included in the appendix on p. 13403.)

Mr. SCOLL. At this time I would like to offer for the record a table which was prepared by the members of the staff from figures compiled by R. R. Eckert, former manager of Copper Export Association, Inc., and submitted by him to the committee. This table is entitled "Share of World Mine Production of Copper Controlled by Members of Copper Export Association, Inc., 1919–1923." It shows that members of the Copper Export Association, Inc., in 1919 controlled 65.4 percent of world production. The percent of total United States production controlled by the members of Copper Export Association was 89 percent. The percentages subsequently diminished to the end of 1923.

The CHAIRMAN. Now wait a minute. Did I understand you to say that the total amount of the United States production controlled by members of the C. E. A., Inc., was 89 percent?

Mr. SCOLL. That is correct—of United States production.

The CHAIRMAN. Now this table also seems to state in the third line that the percentage was 50.3 percent. What is the difference between those two statements?

Mr. SCOLL. The 50.3 percent, Senator, represents the amount controlled by members of the Copper Export Association in the total world production. In other words, they had half of the world production, but 89 percent of the United States production.

The CHAIRMAN. I see. I think that makes it clear. Are you offering this exhibit?

Mr. SCOLL. Yes.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 2104" and is included in the appendix on p. 13404.)

Mr. SCOLL. Mr. Kelley, I believe the Copper Export Association had an executive committee and a selling committee?

Mr. KELLEY. It did.

Mr. SCOLL. And those were its functioning committees?

Mr. KELLEY. Right.

Mr. SCOLL. What were the functions of the executive committee?

Mr. KELLEY. The functions of the executive committee, the members of whom were the executives of the copper companies, were to govern generally, fix policies, and direct the general affairs of the association. The members of the selling committee were composed of the officials of the sales organizations and their function was to govern the details of selling.

The CHAIRMAN. How often were all of the members of the association called together in meetings?

Mr. KELLEY. I think practically but once a year, at the annual meeting.

The CHAIRMAN. And how many votes would be ordinarily cast at an annual meeting? I don't mean how many votes; I mean how many ballots. I am using the word "ballot" in that sense. How many matters would come up at an annual meeting for decision by ballot?

Mr. KELLEY. Well, whatever came up, Senator. Practically every member attended the meeting and every member was a member of or was represented on the executive committee.

The CHAIRMAN. Practically every member of the association was represented also on the executive committee?

Mr. KELLEY. Yes.

The CHAIRMAN. How many members were there?

Mr. KELLEY. Ten members of the executive committee and I should think probably 28 to 30 besides. For instance, to indicate what I mean, take Anaconda. The Anaconda organization represented Inspiration and all the other properties for which it sold the copper.

The CHAIRMAN. Let's get that straight. Suppose you go through this exhibit giving the names of the various members of the Copper Export Association and name to us those which were actually associated with Anaconda, as for example the particular one you mention now.

Mr. KELLEY. Anaconda controlled or at least sold the product that is represented there by United Metals Selling Co.; Greene Cananea Copper Co., Inspiration.

The CHAIRMAN. Let me mark these.

Mr. KELLEY. About the middle of the list; United Metals Selling Co. and the Greene Cananea, and Anaconda Copper Mining Co.,

International Smelting Co., North Butte Mining Co., and Utah Consolidated Mining Co.

The CHAIRMAN. Six of these members, then, were in the Anaconda organization?

Mr. KELLEY. Or represented by it.

The CHAIRMAN. Or represented by it. Now were there any other members which were likewise represented on the executive committee by some other corporation? For example, did the American Smelting & Refining Co. represent any other members beside itself?

Mr. KELLEY. My recollection is that in the beginning of C. E. A. the American Smelting & Refining Co. sold the product of certain properties that afterward became affiliated with the Kennecott Copper Corporation, but the Kennecott Copper Corporation had on the executive committee, or on the board of directors, representatives of Mr. Guggenheim and Mr. Birch.

The CHAIRMAN. How about Phelps Dodge?

Mr. KELLEY. Phelps Dodge was represented by Mr. Douglas—Mr. Walter Douglas—and Mr. McClain.

The CHAIRMAN. And did it represent any of these other companies?

Mr. KELLEY. I think it did. I think at that time Phelps Dodge represented New Cornelia Copper Co.

The CHAIRMAN. Were there any members who were not represented on the executive committee?

Mr. KELLEY. None; the sale of whose product was not represented. You see these organizations——

The CHAIRMAN (interposing). Well, of course that is a different thing from what I stated. The sale of the products might be represented by an individual who was not an officer or even a stockholder of the corporation.

Mr. KELLEY. I am sorry I didn't get that.

The CHAIRMAN. I say, just as a matter of plain fact, the sale—a member might make its agent for the sale of its product a person who was not actually associated with that corporation?

Mr. KELLEY. Oh, yes; and frequently did.

The CHAIRMAN. So I am just trying to determine—it may be of no special importance—whether there were any members who were not actually represented upon the executive committee by officers or executives of the member corporations?

Mr. KELLEY. I think there were.

The CHAIRMAN. That was my question, and you have answered it. Proceed.

Mr. KELLEY. But may I explain?

The CHAIRMAN. Surely.

Mr. KELLEY. That in those cases the universal practice in the selling of copper as it was then conducted—for instance if through the Anaconda's selling organization we sold the product of other smaller units for their account—those contracts of sale provided that these independent companies, so called, would receive their exact proportion of the sales and at exactly the same price as we sold our own product.

The CHAIRMAN. But the policies of the Association were fixed by the executive committee?

Mr. KELLEY. That is right.

The CHAIRMAN. And the dominant figures on the executive committee quite naturally were the representatives of these larger groups?

Mr. KELLEY. That is true.

Mr. SCOLL. Now briefly, if you will, will you describe what the functions of the selling committee were?.

Mr. KELLEY. The selling committee met from day to day or as often as conditions required, and fixed the price at which copper would be sold in the export markets of the world.

Mr. SCOLL. The document I am handing you is entitled "Certificate of Incorporation." Will you just glance at it and see if you recognize it?

Mr. WOLFF. This is a correct copy of the certificate of the incorporation of the Association.

Mr. KELLEY. May I say that Mr. Wolff is counsel for Anaconda and I hope it is all right for him to speak.

The CHAIRMAN. Has Mr. Wolff been sworn for the record?

Mr. WOLFF. No.

The CHAIRMAN. Do you solemnly swear that the testimony you may give in these proceedings shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. WOLFF. I do.

Mr. SCOLL. I would like to offer the certificate of incorporation of the Copper Export Association, Inc., for the record.

The CHAIRMAN. The certificate may be received.

(The certificate referred to was marked "Exhibit No. 2105" and is included in the appendix on p. 13404.)

Mr. SCOLL. And similarly I would like to offer for the record a copy of the bylaws of Copper Export Association, which I believe was prepared under your direction?

Mr. WOLFF. That is a correct copy of the bylaws.

The CHAIRMAN. The copy may be received.

(The copy referred to was marked "Exhibit No. 2106" and is included in the appendix on p. 13407.)

Mr. SCOLL. That should be labeled Exhibit No. 2106.

The CHAIRMAN. Proceed.

Mr. SCOLL. You have before you I believe a copy of the agreement between a blank member of the Copper Export Association and the Association—photostatic copy. Now for the information of the committee, to illustrate how the Export Association worked, I would like to read a brief portion of this agreement, page 3, paragraph 2 [reading from "Exhibit No. 2107"].

> Beginning at the date of this Agreement and ending December 31, 1940, subject, however, to the provisions of paragraph "Tenth" hereof, the Producer shall not sell any export copper whatsoever except through the Association in the manner hereinafter set forth, and the Association shall act as the exclusive agent for the Producer for the sale of all the Producer's export copper, and the Producer shall, at the prices contracted for by the Association, but on terms of payment approved by the Producer, accept and fully carry out all orders for export copper which the Association shall have allotted to the Producer in the manner hereinafter set forth. The Producer may, however, at its own expense, maintain its own selling representatives, and sell export copper to customers direct, but such sales shall only be at prices and on terms approved by the Association, and shall be immediately reported by the Producer to the Association, and shall, for all purposes of this Agreement, be deemed to be orders allotted by the Association to the Producer, and, when delivered as aforesaid, to be export deliveries of the Producer. If the Producer's sales of export copper, in any one month, shall exceed its allotment for that month, the same shall be adjusted to the basis of the allotment made to it for that month.

In other words, Mr. Kelley, the Copper Export Association controlled the exports of each member and where the copper was not sold directly to the Export Association, the Export Association still kept control of the price and allotted those sales on the basis of the total allotments that were made, is that correct?

Mr. KELLEY. I think so.

Mr. SCOLL. In other words that was a slight variation from the original plan of independent selling agencies?

Mr. KELLEY. Yes; I called your attention to that, I believe.

Mr. SCOLL. And Copper Export Association became the central sales agency in foreign trade for the producers?

Mr. KELLEY. Well, Copper Export Association became the channel through which the business was conducted. The actual sales in some instances were made directly, to or by, Copper Export Association, and others were made by foreign agents. That was a matter of setting up the organization to conform to the requirements of individual countries.

Mr. SCOLL. Now let me refer you to page 4 in this document, where it states [Reading from "Exhibit No. 2107"]:

> The Association shall procure orders for export copper upon such terms as it shall deem most advantageous, and shall allot its orders among all the members in proportion as nearly as possible to, but not in excess of, their respective copper available for sale through the Association as theretofore estimated by them as aforesaid, and so far as the Association consistently can, in such allotment, it shall comply with the reasonable requests of the Producer in respect of allotting to the Producer orders from the Producer's former customers.

Now, was very much copper sold direct by the members through their foreign agents, or was most of it sold through the Association?

Mr. KELLEY. Well, my recollection is that a great deal of copper was sold direct but it was reported to the Association and cleared through it. May I suggest to Mr. Scoll that Mr. Eckert, who handled the detail and who is thoroughly familiar with it, as I am not, having not charged my memory or recollection with it, is here; he was secretary of all these organizations.

Mr. SCOLL. Well, I think it will be unnecessary because what we are interested in here only is the general policy of the organization, rather than the specific details.

Mr. KELLEY. It is going back a good many years and I haven't got quite distinct recollection now as to the difference in the way C. E. A. functioned and Copper Exporters, Inc.

Mr. SCOLL. If the committee wishes to call Mr. Eckert.

Senator KING. As far as I am concerned Mr. Kelley's recollection—if it is material, any links should be supplied in the chain, we will call the other witness.

Mr. KELLEY. I think in general Mr. Scoll's questions and my answers are, generally speaking, correct.

Mr. SCOLL. I would like to offer at this time a copy of the agreement between members of the Association and the Copper Export Association as Exhibit No. 2107.

The CHAIRMAN. It may be received.

(The agreement referred to was marked "Exhibit No. 2107" and is included in the appendix on p. 13413.)

POOL OF REFINED COPPER, 1921, AND THE CURTAILMENT OF PRODUCTION, 1919–1921

Mr. Scoll. Now turning to the so-called copper pool, which was set up by the Export Association in 1921, this pool was for the purpose, was it not, of disposing of some of this excess copper we were discussing before, isn't that correct?

Mr. Kelley. Yes; with this explanation, that it was set up primarily for the purpose of financing what had become an unliquidatable stock of copper and which the mining companies were carrying under very burdensome conditions. Its primary purpose was to finance a block of copper, set it aside where it could be liquidated in an orderly manner, without interfering with the production that at that time was still being made.

Senator King. Some of those companies required some financial aid to hold those large blocks of stocks which were on hand?

Mr. Kelley. Nearly all of them did, Senator.

Senator King. So the financing transaction in order to prevent absolute destruction of the market by proper liquidation was necessary?

Mr. Kelley. That is correct. Explanatory of that, Counsel, may call your attention to this, that from January 1, 1919, to January 1, 1921, while the total stock of copper had decreased from 2,278,-000-000 pounds to 1,764,000,000 the stocks in the hands of the producers had increased from 839,000,000 to 1,171,000,000. The liquidation had been out of the Government stocks rather than from the producers' stocks.

Senator King. That is, the Government's had the advantage, then, by the earlier liquidation?

Mr. Kelley. Had the advantage of the earlier liquidation.

Mr. Scoll. I show you now a letter from Mr. Gilbert Montague to the Attorney General, dated February 3, 1921.

Mr. Kelley. I am familiar with that letter.

Mr. Scoll. And I would like to read into the record a brief portion of the letter which I think will explain the operation of the pool, and make it unnecessary to go into any details on examination. On page 5, the letter states [reading from "Exhibit No. 2108"]:

> Relative to the cost of production, it is believed that copper has never been sold at lower figures than have prevailed during the past two months. Some of the Association's members, it may be stated in confidence, are fast approaching the breaking point, because of the Association's inability to dispose of the copper which they have been offering for export, and unless some mode of relieving the strain is found, not only may the Association break up, and the members be driven to cut-throat competition with each other in dumping their copper into export markets, but some of the members may perhaps be overtaken by most serious financial difficulties. Naturally, these facts cannot be made public.

The Chairman. What was the date of the letter?

Mr. Scoll. The date of the letter is February 3, 1921. I would like to offer it in evidence.

The Chairman. It may be received.

(The letter referred to was marked "Exhibit No. 2108" and is included in the appendix on p. 13416.)

Mr. Scoll. Now, Mr. Kelley, wouldn't the cutthroat competition referred to by Mr. Montague have applied not only to the export but to the domestic market, as well, unless that copper could have been taken care of?

Mr. KELLEY. Will you repeat that question?

(The reporter read the last question.)

Mr. KELLEY. It would have applied to the copper market, irrespective of whether it was domestic or foreign, I would say

Mr. SCOLL. Now did every member of the Copper Export Association participate in the pool, do you recall?

Mr. KELLEY. I think they did. This pool—it hasn't been stated just what it was.

The CHAIRMAN. I would like to have you state that, Mr. Kelley.

Mr. KELLEY. Well, there was available at that time in the United States a tremendous stock of copper, more than was adequate for both the domestic and the foreign requirements. When this financial problem came up the certificate of incorporation of the Copper Export Association was amended so as to permit it to become the financial entity through which the operation could be conducted. The operation itself consisted of the assignment of 200,000 tons of copper, or 400,000,000 pounds, to the Copper Export Association, which became the owner of the copper. The copper was earmarked and through proper financial agencies the sum of $40,000,000 was borrowed on this block of copper.

The loan was secured by debentures payable in 1, 2, and 3, years, I think at 6 percent interest; these debentures were sold to the public by the investment bankers, and in that way the situation was alleviated and the different mining companies, more or less in accordance with their stock position and their financial requirements, contributed copper to the pooling and received in return the proceeds, at 8 percent.

Mr. SCOLL. I think you have before you a copy of an offering letter from the Copper Export Association to the banks which financed the pool, setting forth the arrangement. To summarize what is contained in this offer, the copper was to be pledged at 10 cents a pound, was it not?

Mr. KELLEY. Correct.

Mr. SCOLL. And was to be released from time to time in export trade?

Mr. KELLEY. Right.

Mr. SCOLL. And as it was sold the notes would be retired?

Mr. KELLEY. That is right.

Mr. SCOLL. I offer as exhibits the letter from the Copper Export Association, Inc., to the National City Co. and the Guaranty Co. of New York and the letter from those banking institutions to the Association.

The CHAIRMAN. The letters may be received.

(The letters referred to were marked "Exhibit No. 2109" and are included in the appendix on p. 13419.)

Mr. SCOLL. Now, Mr. Kelley, looking at "Exhibit No. 2100" for a moment, the pool was formed in February 1921? [1]

Mr. KELLEY. Right.

Mr. SCOLL. In your opinion, do you think the price of copper would have gone down further than it did in 1921 had it not been for the pool?

Mr. KELLEY. Well, in my opinion, one of two eventualities—no, to be perfectly frank, yes, I think it would have, without doubt.

Senator KING. Some would have been compelled to sell to liquidate pressing indebtedness just the same as in the wool industry where

[1] Appendix, p. 13394.

many of the stocks were held and banks were pressing for payment and wool producers were compelled to sell their wool at greatly reduced prices in order to meet their obligations. Is that a parallel?

Mr. KELLEY. I think it is.

Mr. SCOLL. You referred before to the efforts to prevent the closing down of the mines in 1918. After the armistice in November 1918, did Anaconda consider the possibility of shutting down?

Mr. KELLEY. In November 1918, after the armistice? My answer is that Anaconda did not consider the shutting down of its properties at that time.. On the contrary, if I may be permitted, immediately after the armistice, to wit, on November 11, 1918, we were summoned to Washington.

We had a conference with the War Industries Board on the situation that American industry was facing. We were told—we knew—that an army was returning and that history had shown that the fate of every country was largely in the hands of a returning victorious army. The situation was reviewed, and we were requested by the Government to continue operations, and that they would, on the other hand, see that the price quotation was continued. That haitus to which you referred this morning as to when there were no E. and M. J. quotations was at that period, because nobody bought any copper, but the situation is covered in a statement of the War Industries Board in the minutes of the War Industries Board, if I may read it, as follows.

In a statement dated November 15, 1918, regarding a post-armistice meeting with the committee representing the copper producers of America, the War Industries Board stated: "General industrial conditions to which the uses of copper is intimately related were reviewed, the discussion being particularly directed to the immediate situation that America and the rest of the world is facing. The same spirit of cooperation that characterized the copper producers throughout the war in the supply of the metal to America was present."

Mr. SCOLL. So that you kept going until the end of 1918?

Mr. KELLEY. That is correct.

Mr. SCOLL. Did you consider curtailing early in 1919? Perhaps I can refresh your recollection by reference to an article which appeared in the Wall Street Journal March 30, 1921.

Mr. KELLEY. At the moment I have no recollection as to that specific time.

Mr. SCOLL. In that article a press release issued by Mr. John D. Ryan reads as follows:

After January 1, 1919, production was curtailed; in February wages were reduced by agreement between the copper producers, their employes and the Federal Department of Labor, approximately 15%. Later, in July, living costs having continued to increase, and the metal markets having improved, the wage scale was restored, and continued in effect until January, 1921, when a reduction of approximately 15% was made. During 1919, while the export demand was limited, there was a large domestic consumption of copper. Toward the end of the year a good buying movement, both domestic and foreign, occurred, which carried over into 1920, and apparently justified the expectation that business for the year would show a satisfactory rate of consumption.

After January 1, 1920, and during the first eight months stocks showed a satisfactory decline, when, on account of the general cessation of business activity in this country, the industrial collapse in the Orient and the general unsatisfactory business and political situation in Europe, the trade was adversely affected, and notwithstanding the general curtailment throughout the industry, with but few exceptions, to approximately 40% of normal production, stocks, began to increase, and have steadily accumulated.

That press release seems to give the impression that there was a curtailment in 1919 or 1920. Do your records show that?

Mr. KELLEY. Yes, that is correct. Our misunderstanding was between 1919 and 1921. That is correct.

Mr. SCOLL. To quote further from this article, there was a curtailment also by the porphyries in 1921. I quote the article:

> Charles Hayden, speaking for porphyries, says continuation of production which cannot be sold at cost would only lead to a demoralization of industry, detriment to shareholders and greater loss to employees,

and he announced that Ray and Chino were shutting down. That was in March 1921. Did Anaconda also shut down about that time?[1]

Mr. KELLEY. Anaconda shut down, my recollection is, before the porphyries.

Mr. SCOLL. Would you recall whether any of the other mines shut down in 1921?

Mr. KELLEY. I think before long practically every important producer in the United States was shut down.

Mr. SCOLL. Were there any discussions between the representatives of these companies relative to the situation prior to the shutdowns?

Mr. KELLEY. Well, I have no doubt that the situation was discussed, but there were no agreements with reference to a shutdown of which I am aware.

Mr. SCOLL. It was generally discussed and decided that the best thing to do for all concerned was to shut down?

Mr. KELLEY. No; I wouldn't quite go that far. Whatever action was taken regarding shutdown was taken independently. I have before me a letter from John D. Ryan to the shareholders of the Anaconda Copper, dated March 29, 1921,[2] which was the date of a meeting of the board of directors of the Anaconda, at which the decision was reached to shut down so far as that company is concerned, and this letter gives very largely, Mr. Scoll, the same information that you have read from the press release, only it was addressed directly to stockholders.

Senator KING. The proposition to shut down was based upon the fact that there had been large accumulations and the demands for copper were restricted.

Mr. KELLEY. Yes; you remember we came through a depression in '20 and '21, Senator, and in our own instance I know we had carried on as long as we felt it was prudent to do so, and we had seen our employees through the winter, and we figured that the best time to shut down, if it was inevitable, was in the spring of the year, and we hoped that the situation would clear up before fall, so we could reemploy our people in the winter.

Mr. SCOLL. At this time I should like to offer a table entitled "Crude Copper Production of Principal United States Copper Companies Arranged According to Their Relationship to Copper Export Association, Inc., Monthly, January 1921 to June 1922." This table was prepared by members of the staff and the information was obtained from the American Bureau of Metal Statistics Year Book for 1921 and 1922. You are familiar with this material and the table, I believe:

[1] Subject resumed on p. 13132, infra.
[2] Subsequently introduced as "Exhibit No. 2112," See appendix, p. 13428.

Mr. KELLEY. I am.

Mr. SCOLL. I would like to offer this as our next exhibit, and make a few comments on it.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 2110" and is included in the appendix on p. 13424.)

Mr. SCOLL. The committee will notice from this table that all but two of the principal members of the Export Association shut down.

The CHAIRMAN. Where does this appear?

Mr. SCOLL. That appears in the figures from May 1921 through to the end of the year 1921, to the first of January 1922. You notice a number of blanks in the table for the members of the Copper Export Association, which signifies that they produced nothing in those months with the exception of Mother Lode Coalition and New Cornelia. Then at the bottom of the page, under the heading, "Nonmembers of Copper Export Association," you find four mines and all of them producing right straight through the year 1921 and up to the reopening in 1922.

The CHAIRMAN. In the second line in the table itself under the heading "Members of Copper Export Association, Inc., Total," does that represent the total production of all of the members?

Mr. SCOLL. Of all the principal members.

The CHAIRMAN. That production appears for every month in the chart.

Mr. SCOLL. Yes; it is the total of the copper that was produced by the two mines which did not shut down.

The CHAIRMAN. And it appears that the Mother Lode Coalition and the New Cornelia didn't shut down at all.

Mr. SCOLL. That is correct.

The CHAIRMAN. They were members of the Export Association.

Mr. SCOLL. That is correct.

The CHAIRMAN. So they continued to operate in the same manner that the nonmembers operated?

Mr. SCOLL. That is correct.

Mr. KELLEY. The committee will note the comparative unimportance of the production that was made during those months.

Senator KING. State it, Mr. Kelley.

Mr. KELLEY. Well, the production of the principal companies—I don't know where the definition of "principal companies" rests—was approximately 70,000,000 in January, 67,000,000 in February, 75,000,000 in March, 31,000,000 in April, then it dropped to 12,000,000 and ran along at about that level until February, when the pick-up came, 28,000,000, 40,000,000, 57,000,000, 77,000,000, 81,000,000, and by May we were back to normal production, whereas, for those companies that did not shut down the aggregate production was seven or eight million pounds all together.

The CHAIRMAN. Yes, but, Mr. Kelley, if you will observe the total production for the nonmembers, you will note that the variation was but very slight, 7,295,000 in January of 1921, and in May, when most of the members had shut down with the exception of two as represented here, it had increased to 7,683,000, and the lowest figure at any time appears to be that for July, when it was 6,748,000. In other words, there appears to be very little variation during that time in the production of the nonmembers, whereas with respect to the mem-

bers your production fell from 70,232,000 in January to between nine and twelve million during the period from May to the succeeding January. Do you attach any significance to that?

Mr. KELLEY. I have never examined these before, but if you leave out the Miami Copper Co., the production of the other three nonmembers is rather inconsequential, Mohawk, East Butte, and Wolverine.

The CHAIRMAN. Well, the production of all four of them is very small when compared with the total for the principal companies, or even when compared with the total for the member companies.

Mr. KELLEY. That is right.

The CHAIRMAN. But I am asking hether you attach any significance to the fact that the nonmember companies apparently continued to operate upon the same general level, while the member companies dropped off precipitously in their production.

Mr. KELLEY. I attach no especial significance to it, except this: From my knowledge of the business I know that those nonmember companies were carrying no stocks of copper.

The CHAIRMAN. The small companies were not carrying stocks?

Mr. KELLEY. Two of those companies produced what is known as lake copper, and there was an outlet for lake copper. The Miami Copper Co. never carried any stock, and that is one of the reasons that led to the break-up of this association.

The CHAIRMAN. The larger companies were carrying stock?

Mr. KELLEY. They were carrying the load.

The CHAIRMAN. So I take it from your testimony that the member companies had a surplus on hand out of which they could meet demand, whereas the nonmember companies had no surplus, and if they supplied whatever demand they had, it was to be supplied out of production.

Mr. KELLEY. Out of production, and at a price and at a cut price.

The CHAIRMAN. At a cut price?

Mr. KELLEY. Yes.

The CHAIRMAN. The nonmember companies, then, were selling at a lower rate than the member companies were.

Mr. KELLEY. Shooting right under the umbrella.

The CHAIRMAN. In the United States as well as abroad?

Mr. KELLEY. Abroad I am talking about, but it applied also in the United States.

The CHAIRMAN. And they were then underselling in the United States?

Mr. KELLEY. Always.

The CHAIRMAN. Well, would you say that the effect of your arrangement through the Export Association was also felt in the United States?

Mr. KELLEY. I don't think that there is any transaction of purchase and sale that doesn't affect a market.

The CHAIRMAN. In other words, the world price is bound to be reflected in the domestic price.

Mr. KELLEY. Right.

The CHAIRMAN. Then would it not follow that whatever was done by the authority of the Webb-Pomerene Act through the policy of the Export Association would inevitably have an effect upon the domestic market as well as upon the foreign market?

Mr. Kelley. I think, to speak perfectly frankly, Senator, that you can't completely divorce the two markets.

The Chairman. Of course, when the act was drawn language was written into it intending to bring about such a divorcement.

Mr. Kelley. No; if you will read the Congressional Record you will see Senator Pomerene made the exact statement I am making now, or practically that, and it was made all through the Senate. The guardianship there, and the restriction, was not that there might not be an effect in the domestic market from the foreign market, but that the purview of the act would protect that unless it was done intentionally and artificially. Those were the words of limitation that Congress put in.

Mr. O'Connell. You mean intentionally and artificially for the purpose of affecting the domestic market?

Mr. Kelley. Right; either by increasing price or decreasing it.

Mr. O'Connell. Of course, the activities that you were undertaking in the export trade were artificially and intentionally for the purpose of affecting the export price.

Mr. Kelley. No; and as a matter of fact after this pooling arrangement went through the price went down. That is correct.

Mr. O'Connell. That has to do probably with the effectiveness of what you hoped to accomplish, hasn't it? The purpose of the transactions in the export trade were to maintain price and to control the markets of the export trade. Wasn't that the purpose?

Mr. Kelley. No; the purpose was to realize the equivalent of the domestic price, and my recollection is that out of 183 changes in price during this period, the export market followed the domestic price; the domestic market did not follow the export price. The export price was based upon the f. a. s. price New York plus the c. i. f. charges, generally speaking.

Mr. Scoll. Mr. O'Connell, I might say at this point we are planning to go into that in some detail later on.

In connection with the loan to facilitate the pool, wasn't there some understanding that there would be an effort made to curtail production? I refer here to a press release, which I believe you have a copy of, in the Wall Street Journal, February 8, 1921, which states:

> It is understood that in the course of the negotiations for this loan, and the analysis of underlying conditions, practically all the important copper producers signified their intention of producing only about 40% of 1918 output during 1921.

Well, as a matter of fact, of course they produced a great deal less, but my point is, wasn't that a factor that was considered by the banks before they made the loan, or at the time they were making it?

Mr. Kelley. Not to my recollection, but it is only fair to state that at the time this negotiation was on I was not in New York, although I participated in the organization plan. I had no conference myself with the bankers.

SHUT-DOWN OF UNITED STATES COPPER INDUSTRY IN 1921

Mr. Scoll. I would like to read to you a part of an article by Mr. Agassiz, copy of which you have. Mr. Agassiz was then writing in the Sunday Tribune, New York, January 1, 1922. Mr. Agassiz, I believe, was the president of Calumet & Hecla Mining Co., and president of the Copper & Brass Research Association at that time.

Mr. KELLEY. He was.

Mr. SCOLL. He stated:

It was no simple matter to close down the copper mines of the country. It was a momentous decision, carefully thought out, and carried into effect with the greatest reluctance. It meant loss of employment to thousands of men for an indefinite period, a class of men, unfortunately, who are least able to stand up against such reverses. Many of the men thus thrown out of employment had spent their lives in the copper regions, had built their homes and raised their families there. If there had been any possible way to avert the situation it would have been followed, but there was not.

My only point in continuing this discussion is to bring out, if that be the case, that these negotiations, the bank loan, the operation of the Association, and the curtailment program, were one and all carried on by the same people in conferences with one another, if that be the case. Will you correct me if I am wrong?

Mr. KELLEY. I have told you I did not actually participate in the conferences myself. I know in our own individual instance that our decision to close down came as a result of the recommendations which I made from Arizona and Montana, and I was in the West when it was done.

Mr. SCOLL. The mines reopened in 1922, I believe.

Mr. KELLEY. Right.

Mr. SCOLL. From January on. Was that individual action independently taken, or was there general discussion on the situation determining whether it was a good time to open?

Mr. KELLEY. There was no general discussion about opening. Anaconda led the way on reopening its mines and received criticism from most of our colleagues for having done so.

Mr. SCOLL. At that time, do you recall whether Anaconda closed down its foreign mines?

Mr. KELLEY. At that time Anaconda did not——

Mr. SCOLL (interposing). 1921 and '22.

Mr. KELLEY. We had Greene Cananea, we had a very small interest, 12 percent, and it was making no production; Andes was not in production, and I don't think we had acquired our interest in the Chile Copper Co.

Mr. SCOLL. You don't know whether Chile had shut down?

Mr. KELLEY. I think Chile was just coming along; I don't remember.

Mr. SCOLL. I would like to take up with you the selling policies of Copper Export Association.

The CHAIRMAN. Before you go into that, may I interrupt to ask one or two questions which have been suggested by the article from which the attorney read? This article was written by President Agassiz of the Calumet and Hecla Co. The quotation read by counsel seems to me to go to the very heart of the whole problem that this committee is studying, namely, the effect of our economic machinery upon employment for the masses, which in turn means the effect of the economic machinery upon the use of capital. We have frequently had the phrase used over and over again, "idle men and idle money," and how to use the two. Let me read that again:

It was no simple matter to close down the copper mines of the country. It was a momentous decision, carefully thought out, and carried into effect with the greatest reluctance. It meant loss of employment to thousands of men for an indefinite period, a class of men, unfortunately, who are least able to stand up

against such reverses. Many of the men thus thrown out of employment had spent their lives in the copper regions, had built their homes and raised their families there. If there had been any possible way to avert the situation it would have been followed, but there was not.

Did that represent the attitude also of Anaconda?

Mr. Kelley. It very distinctly did, Senator, because most of us in tnese mining organizations realize exactly what a shut-down means, because we have lived in those communities, and it is a very, very serious thing.

The Chairman. You shut down, as you testified a little while ago, and probably that was true of this one, because you had the surplus stocks on hand from which you could meet your purchase demands?

Mr. Kelley. Right. May I quote in that connection from a paragraph in a document that was referred to by Mr. Scoll.

Our loss during the year, as I recall it, was $17,000,000. That is Anaconda alone. Here was the situation, and I know this is a problem that you are very much interested in, from the Committee's standpoint:

According to the United States Geological Survey, stocks of copper on hand at smelters and refineries at the end of 1920 aggregated 436,500 tons as compared with 452,000 at the end of 1919.

I have shown that that stock was largely transferred during that period to the producers rather than to the Government. There were 371,000 tons at the end of 1918. So that after the Association's purchases of 200,000 tons, that is the copper that went into the so-called pool, there was still left at smelters and refineries within the United States available for domestic consumption 236,500 tons, which is more than 54 percent of the total stocks on hand at smelters and refineries within the United States at the end of 1920, and there was nearly 7 months' supply—this is pertinent to your question, I think, Senator—for all domestic requirements if the latter maintained the average of the domestic consumption for 1919 and 1920, and over 8 months' supply for all domestic requirements if the latter maintained the average of the domestic consumption for the pre-war period from 1909 to 1914. These figures, however, do not adequately show the supply left available for domestic consumption, because they show neither the new production nor the enormous quantity of scrap copper, brass, and so forth.

The Chairman. Then you not only had this surplus stock on hand to meet your demand, but you were also losing money during that time.

Mr. Kelley. Very large sums of money.

The Chairman. Was that true of all the others?

Mr. Kelley. Generally I would say that was so. I don't believe that during that particular period any of the companies were making money.

The Chairman. What was the effect of closing down upon the profit and loss situation?

Mr. Kelley. That would depend upon the condition in each individual company. So far as we were concerned, it involved a very heavy expense. We have, speaking of Montana, underground mines, long levels, tunnels, crosscuts, drifts, that have to be maintained and an enormous amount of pumping to do. With the porphyies it is a very easy thing to shut down. Our budget at the time of this shut-

down—on a shut-down basis—we estimated between five and six hundred thousand dollars a month.

The CHAIRMAN. What was the condition of the foreign market at this time?

Mr. KELLEY. The foreign demand was low, and the market was in adjustment with the domestic market. I have a chart which shows that very well, if you wish to proceed with that now.

The CHAIRMAN. I don't want to interrupt the continuity of your presentation, Mr. Scoll.

Mr. SCOLL. If Mr. Kelley is describing the foreign situation in 1921, that is quite relevant at this time.

Mr. KELLEY. The foreign consumption of copper had dropped I haven't the figures actually separated here (referring to own chart), but it shows that the foreign consumption of copper and the total consumption of copper had dropped. Have you copies of this?

Mr. SCOLL. No.

The CHAIRMAN. Suppose we use the chart which has already been introduced which mav be just as effective for your purpose.[1] It is the one on the easle behind you, Mr. Kelley, or do you have a copy of it in your hand? Now, it would appear from this chart already introduced by counsel that consumption both in the United States and in the rest of the world for 1921 had dropped far below 1,000,000 short tons. In 1920, the consumption had been in excess of a million short tons. You see the column to which I am referring?

Mr. KELLEY. Yes, I do. I have it on our own chart here which I can follow more easily.

Mr. SCOLL. Senator, may I offer some figures which may be helpful from the supporting table which goes with the chart—I don't know whether you have the supporting table there or not.

Mr. KELLEY. No, I don't have it before me.

Mr. SCOLL. It shows in 1920 consumption in the rest of the world was 483,000 short tons; in the United States it was 668,000 tons. In 1921, consumption in the rest of the world was 451,000, a very slight drop from 483,000 to 451,000, while in the United States it had dropped to 327,000.

The CHAIRMAN. That is apparent from the chart itself, and I was going to call attention to that. You have designated the amount of consumption in the United States and in the rest of the world by a different graph in each column.

Mr. KELLEY. Yes, we have substantially the same thing here, and as Mr. Scoll has indicated, the enormous drop from 1919 through '20 and '21 was in the domestic market rather than in the foreign market.

The CHAIRMAN. Now, if you look at that chart as a whole, you will observe that it appears to indicate—and this to me is a matter of striking interest—that consumption of copper is increasing abroad far beyond the increase in the United States.

Mr. KELLEY. That unquestionably is true, and it has been maintained clear through the present time. The production of copper which used to be in the United States in excess of foreign demand is now very much less.

The CHAIRMAN. What contributed to the increase of consumption abroad as compared with consumption in the United States?

[1] Exhibit No. 2100, appendix, p. 13394.

Mr. KELLEY. The economic development that has occurred abroad during the past 20 years, and the post-war period which very greatly outran our own economic advancement in that time.

The CHAIRMAN. What are the principal uses of copper? This is getting a little bit aside from your line, Mr. Counsel.

Mr. KELLEY. Primarily copper in quantity goes into the electrical industry and its appliances.

The CHAIRMAN. Are we to assume that electrical development abroad is exceeding that in the United States now?

Mr. KELLEY. We are to assume that it is, but that is not to say that we are not still as a whole far ahead. Let me illustrate it this way, Senator: The per capita consumption of copper in the United States during the period of our prosperity or prior to the depression averaged over a good many years 13 to 15 pounds. Now, that went into electric lights, telephones, automobiles, refrigerators, and the various things that made this country so far ahead of any other country in the world, in the standard of living and the standard of its transportation and communicating systems. Now, we reached our peak in 1929, so far as the immediate contemporaneous period is concerned, and by 1932 our consumption of copper had gone back to the equivalent of what it had been 25 years before. On the other hand, in Europe, western Europe, where the per capita consumption of copper was 4 pounds to 6 pounds in countries like France—and in England and Germany, somewhat higher—they have increased their per capita consumption.

The CHAIRMAN. This chart shows just what you say, that beginning in 1930 for the first time, but continuously ever since, foreign consumption has exceeded domestic consumption. In 1930 it may have been just about equal, but ever since it has exceeded it; and why that should be so is a matter, I think, of great interest.

Mr. KELLEY. Very great importance.

Representative WILLIAMS. Let me interject this, if I may. As I read that chart, the same thing is almost exactly true with reference to the production as well as the consumption.

Mr. KELLEY. That is true.

Representative WILLIAMS. There is a strange parallel, it seems to me, between the production and the consumption.

Mr. KELLEY. The United States, Congressman, formerly produced 60 percent of the copper of the world. In 1938 it dropped to 25 percent. What were the reasons? The enormous development of the foreign copper production at cheaper cost upon the whole that can be made in the United States. This chart is upon a somewhat larger scale, but is practically the same.

The CHAIRMAN. You were about to express an opinion with respect to the causes for the increase of foreign consumption.

Mr. KELLEY. May I ask Mr. Scoll a question, please?

The CHAIRMAN. Surely.

Mr. KELLEY. Do you think it would be permissible to use the chart (referring to own chart)?

Mr. SCOLL. Go right ahead.

Mr. KELLEY. In answer to the Congressman's question, you have before you a chart, a smaller copy of which I have in the memorandum book I have in front of me. You will observe that the period covered is from 1890 to 1938, and you will observe that beginning with 1890,

the production of the United States was on a constantly ascending line. Taken as a whole there were intermissions, but the trend curve was upward, until the twenties. We got up as high as sixty-odd percent, you will observe, in 1916, which was during the war period. In 1921, you have reflected there the shut-down in the United States. We got back to a position about 1924 or 1925 and from that time on, we began to lose position until 1934 we dropped to less than 1920. In 1938, we came back. Now, you will also observe on that chart the extent to which production, other than the United States, came into the market. In the early days, it was comparatively small. The other North American production was small, and that shows the manner in which South America, Africa, Europe, Asia, and Australia have come in to make up the total production of the world.

The CHAIRMAN. May I just interrupt to make this observation? The chart which you have shown us indicates that from 1894 to 1927, with the sole exceptions of the years 1921—that single year, 1921—the production in the United States was in excess of 50 percent of the entire world production.

Mr. KELLEY. Correct.

The CHAIRMAN. But that since 1927 we have been falling off until in 1934, our production amounted to considerably less than 20 percent—less than 19 percent of the total—but since that time it has shown an increase, although 1938 represented about 22½ percent as compared with 31 percent in 1937.

Mr. KELLEY. Correct.

The CHAIRMAN. Very well, proceed. I just wanted to make clear that I understood the summary.

Mr. KELLEY. Now, as to the reason, of course, it must be remembered that that chart is on a percentage basis. It doesn't mean that the actual tonnage has dropped that much of itself, but it does mean that the outside tonnage has increased tremendously. You will observe from the other chart that the stock of copper was held in the United States and it is also a fact beyond contradiction, I'm sorry, that the recovery in the United States from the depression has been much slower than in the other countries, with the exception of France, and as copper consumption is directly a corollary of general industrial business and living conditions, it accounts for the drop in the per capita consumption in our country.

The CHAIRMAN. What proportion of this world production is controlled by American producers?

Mr. SCOLL. Senator, the relative shares of world production will be brought out in connection with the study of the situation from 1930 to 1932. This material was going to be brought in at that time.

The CHAIRMAN. Very well, I will withdraw the question at this time. Let it go until you present it in the regular order

Mr. COX. I have a few questions about the 1921 shut-down that I would like to ask, if I may. I think you testified that you recommended to the Board that the Anaconda shut down its mines. Is that correct?

Mr. KELLEY. Yes.

Mr. COX. Do you recall when you made that recommendation whether the other large producers in this country had already shut down their mines?

Mr. KELLEY. I don't think they had.

Mr. COX. It was after that they shut down their mines.

Mr. KELLEY. It was after Anaconda shut down that the others shut down.

Mr. COX. Do you recall whether after you made the recommendation you gave any consideration at all to the question whether the other companies would shut down their mines in the future?

Mr. KELLEY. I did not, although I assumed that the same conditions that compelled us to do so would likewise compel them to do so.

Mr. COX. You assumed, then, that they would without actually knowing. Is that correct?

Mr. KELLEY. I made up my mind as to that shut-down at Inspiration, Ariz., and there was no other copper producer present when I think I sent word to Mr. Ryan that a shut down was inevitable.

Mr. COX. Of course, you testified a little while ago that you were aware at that time that the shut-down would mean hardship to your employees and that was a matter of great consideration so far as you were concerned.

Mr. KELLEY. Yes, sir.

Mr. COX. And is it your recollection now that you were prepared to make the recommendation that the mine be shut down and that hardship be inflicted upon your employees irrespective of the question whether any other copper companies would shut down their mines and inflict a similar hardship upon their employees?

Mr. KELLEY. That question, if I understand it, should be answered this way.

In my opinion—I was at Inspiration. Inspiration was producing copper. I was going through the plant. I saw where they were building a sidetrack out in the yard, a new sidetrack. I asked the purpose of the facility. They said, "A place to dump more copper." And the yard was filled with copper. They had no more storage room. It was costing 8 cents a pound to put that product into copper. The finances of the company would have been jeopardized if we had continued to produce copper. If a shut-down was inevitable, it was my judgment that it should come at a time of year when it would work the least hardship upon our employees, and my hope and expectation was by making the recommendation to shut down when I did in the spring, it would clear the way to renew operations in the fall.

I went from Inspiration to Tooele, Utah, and found the same situation; went up to Anaconda and found it there, and it was my considered judgment that not only from the standpoint of the company but from the standpoint of our own employees, a shut-down at that time was the best solution to the difficulty, and that would have been done irrespective of any other company in the United States shutting down or not.

Mr. COX. Then if I understand that answer, it is that you recommended the shut-down irrespective of the question whether the employees of any other copper company would have to bear a similar burden, is that correct?

Mr. KELLEY. If you wish to put it that way; yes.

Mr. COX. Well, I don't wish to put it any way that isn't right.

Mr. KELLEY. The prime consideration to my mind was our own employees and our own situation. I did not consider what the

situation of the employees of other copper companies would be. That was the responsibility of their executives.

Mr. Cox. And you were prepared to shut down, even though the others should keep on operating? That was your frame of mind?

Mr. Kelley. Yes, with the stock of copper we had I believed that was inevitable.

Mr. Scoll. Mr. Kelley, when did you make the trip as you recall?

Mr. Kelley. It was about the period when the negotiations with the bankers on this pool——

Mr. Scoll (interposing). That would be January or February of 1921. Then according to "Exhibit No. 2110," [1] showing the shut-downs of the various members of the association, your advice was taken in May, because the last month for Anaconda production is 3,683,846 pounds. I might add that there was a considerable drop from March to April. In March it was over 11,000,000 pounds and in April it was approximately 3,000,000 pounds, but in May Anaconda had shut down.

Now was it just a coincidence that in May Anaconda, Calumet and Arizona, Calumet and Hecla, Chino, Inspiration, which was an Anaconda affiliate, Nevada Consolidated, North Butte, Phelps Dodge, Ray Consolidated, United Verde, and Utah Copper had shut down, when all of those mines, with the exception of North Butte and Calumet, had been operating in April and suddenly shut off production in May?

Mr. Kelley. Of course, the premise is wrong. The notice to the Anaconda shareholders was sent officially by Mr. Ryan; that was dated on March 29, 1921. The copper that was produced subsequently was the inevitable amount that comes out after the shut-down occurs, which occurs at the mine. What you are reading is smelter production which would follow sometime later. Now as to whether or not that is a coincidence, that they all shut down together, I would say that the same circumstances that compelled Ananconda was known to every other one, and that they shut down certainly as a result of conditions that commonly affected every unit in the industry, and if there was any concert of action under the conditions that prevailed, I am sure that it would be justified as a matter of economic necessity and supported as a matter of law.

The Chairman. Does that statement carry the inference that there may have been a concert of action?

Mr. Kelley. Senator, you don't want me to guess about it, do you? I note that Charley Hayden, who was the chairman of the board of various porphyries companies, gave a statement that was published the same day that the statement of Mr. Ryan was published. I never interrogated either of the gentlemen and they are both dead.

The Chairman. They probably knew what was going on.

Mr. Kelley. I haven't the slightest doubt they did.

Mr. O'Connell. Mr. Kelley, a little earlier you were good enough to tell us that the stock on hand in the various companies which were members of the Export Association was probably a very important factor in their determination to shut down, and you also indicated that the four nonmembers of your Association, which did not shut down, did not have such stocks. Is it your understanding that all

[1] Appendix, p. 13424.

of the members of the Export Association which did shut down did have substantial stocks?

Mr. KELLEY. It is my understanding because the proceeds from the sale of the debentures was distributed unequally but pretty generally—my recollection is—throughout the industry, and the amount that each company received of those debentures represented the amount of copper which it pledged at 10 cents a pound and in no case, I think, was it more than half the stock, the other half being kept for domestic sale.

Mr. O'CONNELL. Why do you suppose it was that the four nonmembers of the Association happened all to be companies that had no stocks, and that apparently all the members of the association did? Was it because of their membership in the Association that they had stocks?

Mr. KELLEY. I will explain that. I think it is a fair question. The two very small companies named there—Wolverine and Mohawk—are very small producers of lake copper. Lake copper is a brand of copper which occupies a special position in sales because of a quantity of silver that is contained in it. It is unusually adapted to certain purposes, and there is, generally speaking, always an outlet, particularly for a very small quantity of lake production. I would, therefore, assume that neither of those companies had any stock. So far as the Miami Copper Co. is concerned, I say without any acrimony I don't think in its history it ever had any stock. It withdrew from the Copper Export Association because it would not be given a frontal position ahead of everybody else. The purpose stated by Mr. Lewisohn was that Miami did not care to accumulate any copper, and after it withdrew it sold its production, and it sold it at a very small fraction under the official export price. Understand, the export price was a public price. Everybody knew it, and anybody who wanted to chisel—to use a frank expression—could do so by cutting that an eighth of a cent a pound.

Mr. O'CONNELL. There are two words I would like to get cleared up. One is the use of the word "official" in connection with the export price, and the second, the use of the word "chisel." I suppose you mean synonymous with someone who would undersell that official price.

Mr. KELLEY. Yes. The official price was so designated in the articles of the Association as the official standard electro price for copper of the Copper Export Association, and that was known publically all over the world.

Mr. SCOLL. I might say at this time that we are going to go into the prices of the Copper Export Association.

Mr. O'CONNELL. I will wait.

The CHAIRMAN. I may say just before recessing until morning, so that we can go into this question of price with fresh minds, that the testimony developed here this afternoon, particularly with respect to the effect upon employment of shut-downs, seems to me to point up the central problem before business and government today. Obviously the creation of this Export Association was brought about by the growth of the foreign organizations which were dealing in this particular commodity. To meet that organization, the business executives in the copper industry came to Congress and asked for and received authority to make a big organization itself, and then there

was the combination. Well, a lot of other circumstances intervened with the war. Production was stepped up, your stocks were accumulated, and then the various producing organizations in the United States losing money found it necessary to shut down.

A large organization cannot be expected, any more than an individual, to continue operations at a loss. Apparently large organizations make every effort to prevent losses and to do that they frequently engage in practices which might be condemned under the antitrust law.

Sometimes they are driven to it as a matter of necessity; sometimes they adopt them for the purpose of preventing losses, if not for making profit. But when all is said and done, when the shut-down comes and the employee is thrown out of work, he finds himself utterly unable to support himself because he has no means of support in this highly organized and complicated modern economic society; and the problem before us all is how to stabilize employment so that this distress which was so well outlined by Mr. Agassiz may not follow, and so that it won't be necessary for industry to shift this burden as it does, to government, to be maintained by government in an ineffective and uneconomic way as it is under the W. P. A.

That, of course, is just a voluntary contribution by the chairman.

Mr. Kelley. I think it is a very excellent summary, and I want this gentleman to be under no misapprehension about our solicitude for our employees. I came from a miner's cabin, so I know what it means.

Mr. Scoll. I offer in evidence the article by R. L. Agassiz entitled "Copper Buying Expected to be Heavy this Year."

The Chairman. It may be received.

(The article referred to was marked "Exhibit No. 2111" and is included in the appendix on p. 13426.)

Mr. Wolff. May we offer the letter to the shareholders of the Anaconda Copper Mining Co. to which Mr. Kelley referred in his testimony?

The Chairman. It may be received.

(The letter referred to was marked "Exhibit No. 2112" and is included in the appendix on p. 13428.)

The Chairman. The committee will stand in recess until tomorrow morning at 10 o'clock.

(Whereupon, at 4:45 p. m., a recess was taken until Wednesday, January 17, 1940, at 10 a. m.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

WEDNESDAY, JANUARY 17, 1940

United States Senate,
Temporary National Economic Committee,
Washington, D. C.

The committee met at 10:40 a. m., pursuant to adjournment on Tuesday, January 16, 1940, in the Caucus Room, Senate Office Building, the chairman, Senator Joseph C. O'Mahoney, presiding.

Present: Senators O'Mahoney, chairman, and King; Representative Williams; Messrs. Pike, O'Connell, and Brackett.

Present also: Representative Compton I. White of Idaho; Walter A. Janssen, Department of Commerce; M. Quinn Shaughnessy, Securities and Exchange Commission; Joseph E. Sheehy and Ellen L. Love, Federal Trade Commission; Theodore J. Kreps, economic adviser; Samuel Moment, economic analyst; and David E. Scoll, assistant counsel to the committee.

The Chairman. The committee will please come to order.

Mr. Scoll, are you ready to proceed?

Mr. Scoll. I am, sir.

TESTIMONY OF CORNELIUS F. KELLEY, PRESIDENT, ANACONDA COPPER MINING CO., NEW YORK, N. Y.—Resumed

Mr. Scoll. Mr. Kelley, just before the session of the committee adjourned yesterday we were talking about the situation at the time of the shut-down in 1921. Have you any further comment that you would like to make in respect to that?

Mr. Kelley. I would, Mr. Scoll. As soon as the shut-down was decided upon, it was, of course, a matter of paramount interest to look after the welfare of the employees. I went to Butte and proceeded to organize there. I first took up the question in Butte with the local bankers, and I advised them that to the extent that the merchants of Butte extended credit to our employees within reasonable restriction, we would guarantee the credit of the merchants. I called the merchants together and we evolved a plan under which it was proposed that the necessities to the families would be furnished, upon our guarantee. This was also done in Anaconda, but in a little different way, because there we had a more direct contact with the entire population, practically all of the people in that town being employed by our company, and there it was done directly between the merchants and the local management.

A very careful system was worked out covering the necessities of the family, from those where there was simply a man and his wife, to those families that had a number of children.

Dependent upon the size of the family, the credits were arranged so that during the period of the shut-down there should be as little

distress as possible. This also was done in Great Falls. The result was that we alleviated, as far as we reasonably could, the economic consequences of the shut-down, and I was very happy at the result because as soon as operations were resumed the bills that had been incurred by the employees from the merchants were paid back by them almost without exception, and it cost us very little money in the aggregate.

The same organization pertained as far as medical services and hospitalization was concerned.

Representative WILLIAMS. How many employees were there involved in that shut-down?

Mr. KELLEY. In our case in Montana I should say approximately 15,000.

Representative WILLIAMS. Did those same employees go back to work when the mine opened?

Mr. KELLEY. It was an extraordinary thing, Congressman, that almost without exception (and this was particularly true at Great Falls and Anaconda) there was almost 100 percent of the men who were on the pay roll at the shut-down who resumed when the whistle blew.

Representative WILLIAMS. How long was that shut-down?

Mr. KELLEY. About 9 months.

Representative WILLIAMS. And during that time did these employees have no other employment at all?

Mr. KELLEY. Oh, no; in a great many instances the employees left, and in the summer months, in Montana, there is usually employment outside. As a matter of fact, our miners, irrespective of shut-downs, are encouraged by us to seek outside employment during the summer as a more healthful occupation than working in the mines. There are a great many small farms and ranches; there is a very large haying season, and there was a good deal of roadwork and outside construction going on during the summertime; so that we watched the savings accounts in the banks and were very much surprised at how little diminution occurred in the accounts because of the fact that these men were able to secure outside employment.

Representative WILLIAMS. As a result of it there was really no serious social or economic problem resulting from that shut-down.

Mr. KELLEY. No serious one. I don't pretend to say that it was not felt. It was. The distress was alleviated.

The CHAIRMAN. And there was distress?

Mr. KELLEY. I have no doubt that families felt the pinch of the reduced income.

The CHAIRMAN. Do you suppose all of these men who were laid off had savings accounts?

Mr. KELLEY. A great many of them did in Anaconda and Great Falls. The employment in those communities is very much more stable than in the mining sections.

The CHAIRMAN. The picture that you draw is very much different from that drawn by Mr. Agassiz in this article which was introduced in the record yesterday, isn't it? [1]

Mr. KELLEY. I don't know what the Calumet & Hecla Co. did. The picture drawn by Mr. Agassiz is unquestionably a correct general statement, but from my knowledge of the management of Calumet

[1] "Exhibit No. 2111," appendix, p. 13426.

& Hecla, and its history, I am sure they did something similar. There was no program that was adopted generally, and I don't know what other mining companies did.

The CHAIRMAN. What was done was done as a matter of grace, wasn't it? There was no obligation upon any of these companies to take care of the men when they were laid off.

Mr. KELLEY. Senator, there was no legal obligation.

The CHAIRMAN. That is what I mean; so it was done as a matter of grace?

Mr. KELLEY. As a matter of moral obligation I would say.

The CHAIRMAN. You had a feeling that you would like to do it and you did it.

Mr. KELLEY. I would like to distinguish between a matter of grace and a sense of responsibility.

The CHAIRMAN. I will accept that distinction but I am trying to make clear that there was no obligation.

Mr. KELLEY. There was no legal obligation.

The CHAIRMAN. That is right. Have you yourself, as head of the Anaconda, or do you know of any other executives who have considered the possibility or the desirability of making it a matter of legal obligation, or some obligation of a greater force, to maintain workers, when economic disasters or reversals of this kind come?

Mr. KELLEY. I think we have all given consideration to that problem.

The CHAIRMAN. Do you think it could be worked out?

Mr. KELLEY. I think it would be very difficult to work it out.

The CHAIRMAN. Do you think it would be desirable?

Mr. KELLEY. Extremely so.

The CHAIRMAN. You have heard the discussion about the so-called annual wage?

Mr. KELLEY. Yes.

The CHAIRMAN. Would that be a difficult scheme to follow?

Mr. KELLEY. It would be very difficult unless you would also be assured of annual employment.

The CHAIRMAN. Now, during the shut-down, of course, there is no lay-off of certain groups of employees—those in the administrative branch.

Mr. KELLEY. Well, there is never a complete lay-off because to the greatest extent possible—in our case, I am only speaking of Anaconda—during the periods of the shut-down we not only keep on very large maintenance crews, but we endeavor to do as much underground development as possible in order that we may keep as many people employed and that we may take advantage of a period of nonproduction to do prospecting, as it is called.

The CHAIRMAN. The maintenance crew is the crew that maintains the property?

Mr. KELLEY. Yes, and in the case of underground mines, that is a very substantial number of employees.

The CHAIRMAN. And, of course, that is a very necessary work because you find it essential to maintain in the highest possible state of efficiency the material possessions and instrumentalities of the company.

Mr. KELLEY. Right.

The CHAIRMAN. But so far as the human instrumentalities are concerned, why they may shift for themselves except for this moral obligation?

Mr. KELLEY. Well of course—all right, fairly, yes.

The CHAIRMAN. That, to me, is one of the serious problems about this industrial question.

Now I recognize the difficulty with which you are confronted, nevertheless.

Senator KING. If the ore deposits are worked out there is nothing else there except a shell, as in the case of many mines; there is no alternative other than to shut-down.

Mr. KELLEY. No, every mine, no matter how big or little, ultimately comes to an end.

Senator KING. Isn't it true in Utah, Nevada, Idaho, California, there are many so-called ghost cities in which the ores have all been extracted and the mines have closed down, the houses indeed have been burned up or carried away. There are no houses in towns which formerly had three, four or five thousand people?

Mr. KELLEY. The mountains are studded out there with such instances.

The CHAIRMAN. We have them in Wyoming, too

Senator KING. We don't blame the owners of the property, many of whom worked in the mines, when they shut down because of no market for the ore, if it is of such low grade as not to be workable.

Mr. KELLEY. It is a necessary evil of the industry.

Senator KING. The mine owners and operators never close down deliberately; they do it because of the lack of markets or conditions beyond their control.

The CHAIRMAN. Or perhaps they have surplus stocks and don't have to mine.

Mr. KELLEY. When they have surplus stock it is a result of continued employment beyond the point of necessity.

The CHAIRMAN. You may proceed.

PRICE POLICIES OF THE COPPER EXPORT ASSOCIATION

Mr. SCOLL. Before taking up the question of prices under the Copper Export Association and the price policies of the association, I would like to summarize the influences that affected the domestic supply of cooper sold in export trade at that time.

The sales agreement between members of the association and the Copper Export Association, Inc., dated as of June 15, 1920 contains the following provision:

> Beginning the date of this agreement and ending December 31, 1930, subject, however, to the provisions of Articles 12 and 13 hereof, the producer shall not sell any export copper whatsoever except to the Association.

Am I correct, Mr. Kelley, in interpreting that to mean that from that point on the Copper Export Association became the exclusive selling agency for the members in the export trade?

Mr. KELLEY. I would think that was true.

Mr. SCOLL. And they would not sell except through the Association?

Mr. KELLEY. Right. I think that was restricted, Mr. Scoll, to the European market. I think the producers continued to sell to the Orient.

Mr. SCOLL. The European market, however, was the principal market?

Mr. KELLEY. Yes.

Representative WILLIAMS. Right in that connection—it is perhaps in the record but I don't recall the figure—what percent of the local producers in volume were members of the association—in volume of production, I mean?

Mr. KELLEY. I think that a chart was introduced that showed that. If not, I would say approximately almost 90 percent at one time. The chart showed 85, down to 60. That was the equivalent of 54 percent of the world production.

Mr. SCOLL. The staff of the committee has prepared from figures compiled by Mr. Eckert, former manager of the Copper Export Association, under the direction of Mr. Kelley, a table showing the share of stocks of refined copper in North and South America, held in the pooling arrangement by Copper Export Association, Inc., monthly, 1921 to 1923. You have a copy of that, haven't you?

Mr. KELLEY. I think I have.

Mr. SCOLL. Before introducing this table into the record I should like to point out that as of March 1921, the pool held for sale in the export trade 55 percent of the total refined stocks in North and South America, and that percentage increased gradually until by July 1922, the pool held, roughly, 69 percent of the stocks. Thereafter it diminished until August 1923, when the pool had completely disposed of all the stocks which it held, and it no longer held any part of the excess copper reserve.

I might add, that according to the testimony already in the record, the last debentures were called in February 1923, and the pool finally liquidated in 1923.

I offer this table for the record.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 2113" and is included in the appendix on p. 13429.)

Mr. KELLEY. May I say, Mr. Scoll, that I do not follow your interpretation of this particular exhibit. As I read it, the total refined stock is given in the first column and the amount that was actually pooled for export trade bears the percentage to the total that you said.

Mr. SCOLL. That is correct.

Mr. KELLEY. If there is a correction we will ask leave to make it later.

Mr. SCOLL. Perhaps I might add by way of further explanation that while the amount of stocks held in the pool decreased, similarly there was a decrease in the total of refined stocks; but the decrease in the total was not as great as the decrease in the pool, and hence the percentage in the pool increased.

Mr. KELLEY. There was a reason for that. When the debentures were issued they had a fixed maturity and there was a fixed ratio of sales assigned to the payment of the debentures. The idea was to pay off the debentures as rapidly as possible, and therefore sales were allocated to the pool and it decreased rapidly, so that by the month of August 1923, the pooled copper disappeared.

The CHAIRMAN. Mr. Kelley, you may have the table examined and submit any corrections that you desire or any criticism of the exhibit.

Senator KING. As I understood your testimony yesterday, that pooled stock of copper was owned by a number of corporations and

companies, and they were heavily involved, and a loan of $40,000,000, or a very large sum, was obtained upon the pooled stocks; and so there was an understanding that the stock should be sold in order to meet the debentures, and of course with reference to the quantity or percentage that each organization had in the pool, his share would be sold and he would receive his share of the proceeds resulting from the sale.

Mr. Kelley. Right.

Mr. Scoll. I believe you have before you now, Mr. Kelley, photostatic copies of cables sent to Berlin by the Copper Export Association. These copies were taken from the files of the Department of Justice and I would like to read certain of them and ask Mr. Kelley to comment, and then later supply a certified copy for the record.

The Chairman. Do you mean a certificate that these are taken from the files of the Department of Justice?

Mr. Scoll. Yes.

The Chairman. Does the witness recognize them?

Mr. Kelley. I never saw these or heard of them until Mr. Scoll was good enough to furnish me with a copy of them. They were cables, as I understand it—I have no direct knowledge——

The Chairman (interposing). I was merely trying to identify the material so that you can testify with respect to it.

Mr. Kelley. I don't doubt its accuracy, although I have no personal knowledge about it.

The Chairman. You are assuring the committee that they were taken from the files of the Department of Justice and you will file with the committee a certificate to that effect?

Mr. Scoll. I will, sir, and I am offering them not to prove the facts contained, but merely to question Mr. Kelley with respect to their relation to policies of the Association.

The Chairman. Very well.

Mr. Scoll. You will notice on page 2, a cable, May 21, 1920, which reads [reading from "Exhibit No. 2114"]:

> We are not very anxious about the present situation London market. It will run its course and in due time we shall do business there. Meantime we have withdrawn from the market and are not meeting competition.

The next sentence says:

> We feel differently with regard to your market and authorize you to meet any fair competition on a conservative basis—

and so on—the rest is not material. I presume that that has reference to the fact that the conditions in Berlin, London, and other markets were somewhat different at that time.

Mr. Kelley. Well, Mr. Scoll, I really haven't any recollection. These cables, may I say, were sent, I am assured, by Joseph Clendenin. Joseph Clendenin, God rest his soul, was the chairman of the selling committee, and all of the copper men here will recognize the aggressiveness of Joe as a salesman. These are sales telegrams from Mr. Clendenin to his agents or his representatives abroad. I wouldn't vouch entirely for the accuracy of his statement.

Mr. Scoll. But as chairman of the sales committee, Mr. Kelley, he had the job of carrying out the sales policies of the Association, had he not?

Mr. Kelley. He had charge of carrying out the sales. I don't think he had much to do really with the general policies.

Mr. Scoll. And such sales policies as he put into effect were sales policies of the organization, were they not?

Mr. Kelley. They were so far as Mr. Clendenin and his subordinate agents were concerned; yes.

Mr. Scoll. Now these subordinate agents were agents of the Association in Europe?

Mr. Kelley. They were the agents through which the Association did business in various parts of Europe.

Mr. Scoll. And the instructions which he gave the agents were instructions of the association, were they not?

Mr. Kelley. For their purpose I assume they were. There is one interesting comment I would like to make upon these cables. They show what might interest particularly the Congressman, and that is the intensity of the competition during all this time abroad, both with the dealers in the London metal markets and with the outside copper—that is true.

Mr. Scoll. Yes, they do; I think that is well brought out, but there are also a couple of other points that I think I would like to bring out.

The Chairman. May I ask at this point whether we are to understand Mr. Kelley as intimating that too much reliance will not be placed upon the statements of sales agents?

Mr. Kelley. I think that is a fair deduction, Senator.

Mr. Scoll. Except in this case Mr. Clendenin was the chairman of the sales committee and the carrying out of policies of the association was in his hands, unless Mr. Kelley wishes to contradict me.

Mr. Kelley. When you say "policies," I say that Clendenin's authority and the authority of the sales committee was limited to selling; they had nothing to do with the general policies.

Mr. Scoll. Quite right, but it is only selling I am talking about.

Mr. Kelley. Then I agree.

Mr. Scoll. On page 3 of this list is another cable dated March 15, 1921 [reading from "Exhibit No. 2114"]:

> Cannot clearly see our way meet competition at the present time. We may if it is a business of considerable importance.

That is a cable dated March 15, 1921. It will be noted that the pool was formed in February 1921.

On page 4 there is a cable dated June 7, 1921, to Berlin. I might add that all of these cables were to Berlin.

> Do not care to withdraw from the market entirely. We leave it to you asking price.

The rest of it I don't believe is material.

Mr. Kelley. You know, it shows a valiant rear guard action. Mr. Clendenin started with a price of 18⅞, New York, and after a struggle we get down to where this last cable abandoned the effort and said they would leave the price to the agent, and it was 12⅛.

Senator King. He didn't impress your selling capacity very much on the buyers of copper, then.

Mr Kelley. He did not, Senator.

Senator King. The price of copper was according to the demand, and if there was the right demand, then the sales were dead and the prices would go down as the competition increased from independent sources and with pressure to sell the stock that was on hand.

Mr. Kelley. Right.

Mr. O'Connell. I might add that that was in spite of and not because of the efforts of the association. Isn't it fair to say that?

Mr. Kelley. Right.

Mr. Scoll. And again on February 7, 1922, Mr. Clendenin cabled, "We are not anxious sellers."

I would like to offer this list of cables at this time, with the privilege of substituting a certified copy.

(Senator King assumed the Chair.)

Acting Chairman King. No objection. Have you any comment further to make upon these cables, Mr. Kelley?

Mr. Kelley. No, I think not, Senator; I think they speak for themselves.

Acting Chairman King. You can examine them and then when a certified copy is produced, or before, if you care to make any comment from it, I think the committee will give you an opportunity.

(The list referred to was marked "Exhibit No. 2114" and is included in the appendix on p. 13429.)

Mr. Scoll. At this time, I would like to read to the committee some figures from a table prepared by Mr. Eckert, former manager of the Copper Export Association, under the direction of Mr. Kelley, and at our request. This table is entitled, "Production, Export Shipments, and Stocks of Refined Copper, North and South America, Distributed According to Quantities Controlled by Members of Copper Export Association, Inc., and Others, Monthly, 1921–23."

I might add that these are stocks reported by refiners. It shows that in June 1921, the Copper Export Association controlled 47 percent of the exports from North and South America of refined copper. It controlled at that time 55 percent of the production. We move ahead to February 1922, and we find Copper Export controlled 39 percent of the exports, while it controlled 62 percent of the production.

Finally, the average for 1923—Copper Export controlled 54 percent of the exports to Europe, while it controlled 74 percent of the production.

I would like to offer this for the record.

Acting Chairman King. It will be received.

(The table referred to was marked "Exhibit No. 2115" and is included in the appendix on p. 13437.)

Mr. Kelley. I should merely like to add to what Mr. Scoll has said.

Mr. Scoll. May I summarize first, and then you may comment? I would like to ask whether these cables we have read from and this table do not indicate that Copper Export Association in trying to meet the competitive situation was, as put in the cables, taking the position of a reluctant seller—in other words, whether Copper Export Association was or was not an anxious seller during this period.

Mr. Kelley. Well my answer to that would be that Copper Export Association was always a very interested seller, and, yes, they were anxious sellers.

Mr. Scoll. But weren't they holding back for better prices?

Mr. Kelley. They certainly were not dumping their copper, although, as I said, it was a rear guard fight, and I should like to point out, Mr. Scoll, in addition to the figures that you have given for the percent of export production and export shipments. that during that

same time those members of Copper Export Association were holding from 85 to 94 percent of the stocks.

Acting Chairman KING. And during that period the price of copper went down to 12 cents, as I understand it.

Mr. KELLEY. The price of copper continued to go down. The market was very narrow.

Mr. SCOLL. That merely emphasizes the point.

Mr. KELLEY. Right; and the people that were running their mines, as shown by the exhibit yesterday, were crowding their small production on the market.[1]

Acting Chairman KING. If you had crowded too much, and the efforts to sell had been too great, you would have absolutely destroyed the market, would you not?

Mr. KELLEY. It would have collapsed.

Representative WILLIAMS. I would like to ask you a question, whether or not the price of copper declined during the period from '21 to '23. Is that what I understand?

Mr. KELLEY. Yes.

Representative WILLIAMS. That was not my recollection of what the chart showed. I may be mistaken about it.

Mr. SCOLL. The price declined until the middle of 1921. Thereafter, it rose.

Representative WILLIAMS. That is what I am talking about, the period from '21 to '23.

Mr. KELLEY. There were several price movements during that period. It isn't fair, I think, to say it did one thing. It fluctuated. I have a chart which shows here the price of copper daily over the entire period we are discussing, f. a. s. refinery, Atlantic seaboard, which is the domestic price, and the price of the copper exported, and the relation between the two.[2]

Mr. SCOLL. If I may interrupt, the relation between the two is what we are going to get to now. If you were going to discuss that, perhaps we can best discuss it in order.

Mr. KELLEY. All right.

Representative WILLIAMS. The reason I asked that question, I was under the impression from what the chart showed there was a general trend upward from the middle of '21 until perhaps '31, a general trend.

Mr. KELLEY. In the beginning, the highest price in 1921 was reached in June. Let me modify that this way. May I give you the price trend during the year '21? We start the year with a price of between 12 and 13 cents. The price declined until the month of March, at 11¾. It then began to go up, and by the end of the year—that was rather constantly from August up to the end of the year—the price reached 13½ cents. It then declined during the year 1922—until April—there was a steady decline—then the price rose somewhat and leveled off to the end of the year.

You are going to ask me about this chart?[2]

Mr. SCOLL. I was going to ask you about the relation of prices; yes.

Mr. KELLEY. Have you any objection to looking at this chart?

Acting Chairman KING. Could it be placed in the record without too much cost?

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[1] "Exhibit No. 2110," appendix, p. 13424.

[2] This chart is on file with the committee and the data it represented appear as "Exhibit No. 2151," appendix, p. 13510.

Mr. KELLEY. I simply wanted to give you a graphic picture of two things. One was that during this period there was no fixed price, the price was a fluctuating price. Second, there was no artificial difference between the domestic market and the foreign market.

(Senator O'Mahoney resumed the Chair.)

The CHAIRMAN. How does this compare with the chart that was put in the record yesterday? [3]

Mr. KELLEY. That chart is very useful. I haven't had an opportunity to discuss it with Mr. Scoll. I don't know just what Mr. Scoll's purpose was in introducing that chart, but the comparison is not correct as showing the difference between the f. a. s. market, New York, and the electrolytic price in London.

Mr. SCOLL. In what respects is it in error?

Mr. KELLEY. It is in error because the dotted line which shows the London market is standard copper and not electrolytic.

Mr. SCOLL. Well, now, there is a more or less constant difference between standard and electrolytic represented by the cost of refining, isn't there?

Mr. KELLEY. No; this chart admirably shows one of the vices that Copper Export Association was endeavoring to get rid of and that again we undertook to get rid of in Copper Exporters, Inc. It shows that notwithstanding—well, I ought to say this perhaps in a preliminary way: The solid line on that chart, Mr. Scoll, shows the electrolytic price at New York. The dotted line shows the movement of standard copper on the London Metal Exchange.

The CHAIRMAN. Let me interrupt, Mr. Kelley. For the purpose of the record, Mr. Scoll, will you state the number of this exhibit so that it will be clear from the printed record what chart we are discussing?

Mr. SCOLL. We are discussing "Exhibit No. 2100."

Senator KING. I think he ought to be permitted to make an explanation of the chart, because if it is not quite accurate——

Mr. KELLEY (interposing). I am not questioning its accuracy; it does accurately represent what it purports to, the difference between the New York electrolytic price and the standard market, but what I want to point out is, standard copper is sold on the London Metal Exchange and is the basis of the speculation in copper there. Standard copper usually is not a merchantable copper. Anything that meets the requirement of 96 percent copper is standard for what is called G. M. B. warrants. G. M. B. warrants are the warrants that are traded in on the exchange.

Now, the price of standard depends upon the relative impurity of the copper, and as I say, for most purposes that copper is not available at all.

The CHAIRMAN. In other words, standard copper must be subjected to some additional process before it can be commercially used.

Mr. KELLEY. Right; it is merely the chips that they play poker with on the exchange. Now, notwithstanding that, you will observe on that chart that at times the standard copper price exceeded the price of electrolytic copper, and conversely, so that while theoretically there should be a fixed difference which would represent the cost of transportation to a refinery and back after refining, in order to put it

[3] "Exhibit No. 2100," appendix, p. 13394.

in shape to deliver, that by no means follows at some places—there you see that there is a contango.[1]

The CHAIRMAN. Electrolytic copper, on the other hand, is the commercial copper.

Mr. KELLEY. Yes.

The CHAIRMAN. Now, I understand you to say that you have no criticism whatsoever of the accuracy of these two lines. The solid line represents the New York electrolytic price, but the dotted line represents the standard London price, and the comparison between the two is not the comparison which you think to be significant.

Mr. KELLEY. It is not a comparison based upon a commercial difference.

Mr. SCOLL. Senator, we did not offer it for a comparison between the two; we offered it to show the New York market and the London market. Now, the standard price in London represents what standard copper was sold for in London. There was a market of standard copper. It went up and down. It may have gone up and down in relation to the New York electrolytic price or in opposite directions, but the only purpose was to show the trend of the New York market and the trend of the London market in relation to these episodes that we are discussing—Copper Export Association, Copper Exporters, Inc., and subsequent periods.

The CHAIRMAN. The only reason we are discussing this exhibit now is in relation to the large exhibit or proposed exhibit which Mr. Kelley was discussing, and I was merely trying to determine whether this chart [2] would serve his purpose. What difference would it make, Mr. Kelley, in the representation on "Exhibit 2100", if a line were placed there showing the London electrolytic price?

Mr. KELLEY. It would make a very substantial difference.

The CHAIRMAN. What kind of a difference? Can you describe that?

Mr. KELLEY. May I show you? You have seen this chart, Mr. Scoll (referring to own chart).[3]

Mr. SCOLL. Yes; I have seen the chart.

Mr. KELLEY. That chart shows the actual daily quoted price for copper, f. a. s. New York refinery. It also shows the daily quoted price for electrolytic copper delivered abroad by Copper Export Association. It is interesting to observe two things from that chart, if I may say so. One is that the fluctuations occurred practically daily. My recollection is that during the period of the existence of Copper Export Association, there were 183 changes in the price of copper; that 84 percent of those changes occurred first in the domestic market; and that the association's price, instead of being a fictitious or artificial price, was a sound price, based upon the f. a. s. New York price, plus the c. i. f. carrying charges to European ports.

Senator KING. Could this chart which you have exhibited, Mr. Kelley, be reduced in size and then reproduced so it could assume something of the size of 2100?

Mr. KELLEY. We could split it up in different periods, but the scale would really mean nothing if you compressed it too much.

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[1] Referring to "Exhibit No. 2100," see appendix, p. 13394.
[2] Ibid.
[3] Mr. Kelley's chart was filed with the committee and the data represented appear as "Exhibit No. 2151," appendix, p. 13510.

The CHAIRMAN. I was going to suggest, Mr. Kelley, that your assistants and the members of the staff confer during the recess this noon, and I have no doubt we can either prepare a new chart which shall show not only what is on "Exhibit No. 2100," but also what is on yours, and get the two together.

Mr. KELLEY. We can certainly prepare a chart that will show the standard line there, also.

The CHAIRMAN. I think that can be done very well during the recess, and then we can discuss it more intelligently later.[1]

Mr. KELLEY. The thing I want to emphasize is that these two lines on our chart show the actual difference in the price of electrolytic copper as delivered to the consumers. The dotted line on Mr. Scoll's chart shows the speculative influences of the London market. They use a term called "contango." "Contango" represents the difference between the spot and the future price of copper, where the future price is higher than the spot. In the normal course of events the higher price of future represents the cost of carrying the copper over to a future position, but if you introduce into it the gambling instinct where the fellow feels by buying futures or selling futures he is either buying or selling against the rise or the fall of the future market, and when that spread gets, as it frequently does, either way beyond the theoretical cost of carrying copper forward, the speculator is either selling short or buying long, and that is the reason that on that chart you will see at times this crude copper—this unmerchantable copper—actually sold at a higher price than the commercial product. The speculation was toward a rising price.

Mr. SCOLL. Now, if we may, Mr. Kelley, let's get to a comparison of the New York electrolytic and the London electrolytic price. In other words, let's compare the commercial copper both in New York and in London, and at this time, if I may, Senator, I would like to ask Mr. Kelley to step down for just a moment and ask Mr. Brownell to take the stand. I would like to identify a document.

The CHAIRMAN. Do you solemnly swear the evidence you will give in this hearing shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BROWNELL. I do.

TESTIMONY OF FRANCIS H. BROWNELL, CHAIRMAN OF THE BOARD, AMERICAN SMELTING & REFINING CO., NEW YORK, N. Y.

Mr. SCOLL. I show you now a letter dated New York, May 26, 1921, addressed to you by Mr. H. M. Brush. Are you familiar with the contents of that letter?

Mr. BROWNELL. I was shown this letter yesterday. I have no doubt of its authenticity. Previously I had no recollection whatever of it.

Mr. SCOLL. So far as you know, and as far as you recollect the facts at that time, the information that is contained here is probably accurate?

Mr. BROWNELL. I would assume that it is accurate without recollection.

Mr. SCOLL. Thank you very much.

(Mr. Brownell was excused.)

[1] See footnote 3, p. 13153

TESTIMONY OF CORNELIUS F. KELLEY, PRESIDENT, ANACONDA COPPER MINING CO., NEW YORK, N. Y.—Resumed

RELATION OF EXPORT PRICE TO DOMESTIC PRICE

Mr. Scoll. I would like to read a paragraph from that letter. You have it before you, I believe, Mr. Kelley. It is on the first page, the first full paragraph after the indented paragraph [reading from "Exhibit No. 2116"]:

> You will note from the attached that the Export Association have realized constant and substantial premiums over the prices quoted by the Engineering and Mining Journal. The E. and M. Journal prices although possibly influenced by the foreign prices represent primarily domestic prices of copper.

The Engineering and Mining Journal price, Mr. Kelley, is the price that is recognized as a going price in the trade in New York, is it not?

Mr. Kelley. It is. Yes and no. I mean you may have three prices on the same day but it is a recognized authority.

Mr. Scoll. I am planning to go into that in further detail later. I would like to offer this letter in evidence.

The Chairman. It may be received.

(The letter referred to was marked "Exhibit No. 2116" and is included in the appendix on p. 13439.)

Mr. Kelley. May I comment?

The Chairman. Certainly.

Mr. Scoll. Before you comment, Mr. Kelley, may I ask a question or two?

Mr. Kelley. I mean on this letter.

Mr. Scoll. Well, I would like to ask you a couple of questions and then you may comment later.

Senator King. Before this letter is offered, who was Mr. Brush?

Mr. Kelley. Mr. Brush was vice president of the American Smelting & Refining Co., and I believe in charge of sales.

Mr. Scoll. Now the copper market at this time was a world market, was it not?

Mr. Kelley. Yes.

Mr. Scoll. So that in the absence of any special circumstances, copper prices would ordinarily tend to seek a common level; is that correct?

Mr. Kelley. That is true, generally speaking.

Mr. Scoll. So that if there were any material differences in domestic and export prices there were dealers in New York and London who would arbitrage?

Mr. Kelley. Yes.

Mr. Scoll. Now then, in view of that fact, if Copper Export Association could materially control the supply of copper for export, it could get more for export than domestic sale, even allowing for freight and insurance; is that right?

Mr. Kelley. Theoretically it might, but practically it could not over a continued period.

Mr. Scoll. That letter shows that at certain times it did; if I may refer you back, the prices quoted there show that the price realized by Copper Export Association on an f. o. b. basis in New York exceeded the E. and M. Journal price by a constant differential. I am sorry it is not constant; it varies; but in all but 2 months for 1919, and 1920 and through April 1921, you notice that there was a differential

in favor of Export Association over and above the cost of freight and insurance.

Mr. KELLEY. There was, of course, as shown by this letter, a differential that varied from a very slight differential of an eighth in September to 1.39.[1] At that time I don't know exactly what the situation of the copper market was but I think the conclusion that Brush drew in this letter is not substantiated by the fact, because you will observe that where he gives the highest differential over the E. and M. Journal price in the month of August 1919 the prices were practically together [2] and the reverse is true. Now that error, in my opinion, comes in and the possibility of it, was recognized by Mr. Brush in this letter. He was dealing with monthly averages and monthly averages are apt to be in error as against daily averages, dependent upon whether you are dealing with a rising or a declining price and whether that rise or decline comes at a time of active selling contemporaneous during the period of the month, because you will observe that Mr. Brush says in this letter to Mr. Brownell:

> The only way to prove conclusively the facts of the situation would be to have the Export Association make a daily record of their net prices from day to day since the organization of the Association and then have the various agencies each make up a similar record of their net prices for domestic sales on the same days, and submit it either as a joint statement through the Manager of the Export Association or individually, for comparative purposes,

and that is exactly what we have done there (referring to own chart).

Mr. SCOLL. You don't think there was anything wrong in the policy of trying to get more than just the freight and insurance do you?

Mr. KELLEY. I do not. I think it would have been entirely proper, provided we observed and kept within the limitation of the Webb-Pomerene Act so far as affecting the domestic price.

Mr. SCOLL. Now, the foreign price was based on the domestic price?

Mr. KELLEY. Very largely.

Mr. SCOLL. Is there any qualification to that?

Mr. KELLEY. I think there were a few instances in which the export price led the domestic price, but very few—less than 20 percent.

Mr. SCOLL. When you say domestic price, what domestic price are you referring to—E. and M. Journal price or f. a. s. price of a non-member or competitor?

Mr. KELLEY. I was thinking generally from the standpoint of the producer's price, which may or may not be the E. and M. Journal price over a short period.

Mr. SCOLL. How did you determine the producer's price?

Mr. KELLEY. I do not think that was determined because I think the only standard price recognized was E. and M. Journal price.

The CHAIRMAN. That is the only one with which we can make any accurate comparison?

Mr. KELLEY. That is right.

Mr. SCOLL. The E. and M. J. price was the reported price. Is that correct?

Mr. KELLEY. Yes.

Mr. SCOLL. So if you had to make a quotation at 11 o'clock in the morning you didn't have the current E. and M. J. price in front of you.

Mr. KELLEY. No; it might or might not affect our price. The E. and M. J. never affects prices, nobody sells the product except perhaps

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[1] The differential of an eighth in September was negative.
[2] See Exhibit 1151, appendix, p. 13510.

under a written contract based upon the E. and M. J. price. The E. and M. J. reports the prices that have been made in the industry. For instance, Anaconda's price might not be the E. and M. J. price. If any producer was well sold and didn't need to sell any more copper, he would withdraw from sale, leaving the market undoubtedly to others. During a period he might not record any sale at all; yet the E. and M. J. might record the sales that had been made.

The CHAIRMAN. In other words, the export price was not determined by the E. and M. J. price because that was merely a reporting system.

Mr. KELLEY. Right, that is just for a record.

The CHAIRMAN. It tells us after the fact what has happened.

Mr. KELLEY. Right.

The CHAIRMAN. What Mr. Scoll is trying to develop, I believe, is how did you guide yourself before the fact.

Mr. KELLEY The way the Export Association did it—the sales committee met from day to day, or as often as was necessary. They had the advices, they knew what the domestic market was. Every sales agency in New York knows what the other fellow is selling copper for 5 minutes after he does it, because it is reported on the ticker—it is an open commodity price. They knew what the domestic situation was; they had the benefit of the cables from abroad, and in looking at their domestic situation, plus the information regarding their foreign situation, they fixed the price, and that price might not at all times have been exactly the same in all the different countries of Europe. There was a question of where there was buying and where there wasn't buying; it was a question of market conditions. Do I make that clear? It was a price arrived at considering the domestic situation, the foreign situation, and all of the facts that entered into making a price for the next day or for the next succeeding days.

Mr. SCOLL. Now you say that the sales committee met regularly and fixed the export price.

Mr. KELLEY. That is right, in connection with the Brussels Committee.

Mr. SCOLL. The Brussels Committee was a part of Copper Exporters, a later organization, was it not?

Mr. KELLEY. Oh, yes; that was Copper Exporters, Inc. You are right.

Mr. SCOLL. So the sales committee of Copper Export Association had before them all the current quotations up to the time of the day when they were sitting?

Mr. KELLEY. Right, usually late in the afternoon, so that the price could be cabled over for business in Europe in the morning.

Mr. SCOLL. Did, in your opinion, the fact that they were sitting together and discussing foreign prices in relation to domestic prices have any influence in changing the intensity of the domestic copper competition?

Mr. KELLEY. Not a bit.

Mr. SCOLL. You mean these men who were all working together each day and talking over prices to determine what the foreign price would be, never gave each other any idea of what the domestic price ought to be?

Mr. KELLEY. They knew what the domestic price was and that chart will show you just how intense the competition was. You had an open, free market in America, a competitive market, an intensely

competitive market. That fixed your base price. The theoretical difference at which your export price was fixed was the carrying freight and insurance across the ocean. If you could sell more advantageously at that in Europe, through some European agency, unquestionably your agent would get the best price he could.

The CHAIRMAN. You don't want the committee to understand that the members of this price fixing committee of the Export Association were able to go into conference with themselves as managers of the export market and determine a price for the export market and then as private individuals, so to speak, representing their respective domestic corporations, divest themselves of all of the knowledge that they had acquired or all of the conclusions that they had reached in their price fixing agreement for the foreign market when they were determining what they would sell for in the local market.

Mr. KELLEY. Incredible as it may seem, I mean to say that the selling organizations representing the different units were absolutely in competition and that the price upon which they built the export price was a price that already had been arrived at in a competitive market.

The CHAIRMAN. In other words, you draw the picture to my mind of the interior construction of a submarine which can shut out the flood of water that comes in.

Mr. KELLEY. Let's be reasonable about it. It may have affected it to some extent, but the point I want to emphasize is that there was the most intense competition all the time.

The CHAIRMAN. You are telling the committee that so far as the domestic market was concerned, the heads of these various copper organizations were in active competition with one another but that so far as the foreign market was concerned they were cooperating.

Mr. KELLEY. That is right.

The CHAIRMAN. And that that cooperation in fixing price for the foreign market did not in any way affect their judgment with respect to the domestic price?

Mr. KELLEY. I wouldn't say that, but I would point out this to you, Senator, if I may: the domestic sales that they made for their own companies were their own sales. The sales that they participated in in a foreign market were for the joint account of everybody, so that they had a far greater interest, as far as disposing of their product, to sell it in the domestic market rather than to sell it in the foreign market.

The CHAIRMAN. I am not even implying that so far as the domestic market was concerned there was any intention to violate the Sherman Act or the Clayton Act or to do any of the things prohibited so far as operations in the United States are concerned; but I should like to have your opinion as to whether or not an export organization of this kind can operate to fix prices in the world market without at the same time affecting the prices in the domestic market.

Mr. KELLEY. I don't think it could.

Mr. O'CONNELL. May I ask a question?

Mr. KELLEY. I beg your pardon, just a moment. Mr. Eckert has sent a note to me, and this is undoubtedly the fact, that this Sales Committee did not meet every day; the Chairman of the Sales Committee communicated to Mr. Eckert, Mr. Eckert communicated to the others, mostly by telephone, and they only met when there was a substantial change in the situation.

SHERMAN ACT CRITICIZED

Mr. O'CONNELL. Mr. Kelley, as I understand it (I may exaggerate a bit), it seems to me that you describe a situation which is in the nature of a dual personality, in which you have a group which can operate generally having a price-fixing function for the foreign trade, and at the same time are able to substantially divest themselves of any similar intention or result insofar as the domestic market is concerned. I am interested in getting your view as to whether that is a result of the Sherman Act or a result of a state of mind on the part of the people who participate in that arrangement, quite apart from the Sherman Act.

Mr. KELLEY. I should unquestionably say it is the result of the Sherman Act.

Mr. O'CONNELL. That is the only thing that would prevent it, is it?

Mr. KELLEY. I don't know that that is the only thing that would prevent it, but these sales agencies were under the constant governing hand of the executives of the companies and had been admonished repeatedly about the situation, and it was hard enough, as you will see from Mr. Clendenin's cables, to keep them within proper restraint; and not only that, Mr. O'Connell, but we were constantly under the supervision of the Federal Trade Commission and the Department of Justice. There was scarcely—I don't know that there was any time that we didn't have a representative of the Department of Justice or the Federal Trade Commission sitting on our doorstep. As a matter of fact, it was that constant supervision and annoyance that was one of the principal causes that led to the abandonment of the association.

Mr. O'CONNELL. Frankly, not speaking at all of the copper industry, I have never been impressed with the effectiveness of the activities of either the Federal Trade Commission or the Department of Justice in preventing combinations in restraint of trade.

Mr. KELLEY. We were.

Mr. O'CONNELL. And they may have caused you people some annoyance—I have no doubt that you have been annoyed about things like that from time to time—but that doesn't seem to me to answer the question that I pose. My question relates generally to the nature of competition. Everyone speaks of competition as though it were something that just existed. Competition, as I would understand it, in your industry in the domestic trade exists by virtue of the Sherman Act. Is that correct?

Mr. KELLEY. Well, I would say there is a better chance to get a more stable situation if the Sherman Act didn't exist, and I have very definite views about the competitive system to the extent to which we carry it in the United States under the restrictive provision of those laws. But answering your question fairly, I haven't any doubt if it hadn't been for the Sherman law we would have been able to cooperate to better advantage on price in the domestic market.

Mr. O'CONNELL. Or, as I would put it, you would have felt yourselves not only in a position to, but you would have thought it desirable to fix prices for the domestic market.

Mr. KELLEY. I wouldn't say fix prices—fix ceiling prices.

Mr. O'CONNELL. I don't think the difference is substantial. People talk about cooperating on price, making a proper basis of price, but aren't we talking about price fixing in general?

Mr. KELLEY. Excepting what I think you define the term to be; yes.

The CHAIRMAN. Just what did you mean by that, "excepting" what you think Mr. O'Connell would define the term to be? That is a qualification which is pretty broad.

Mr. KELLEY. Well, I do not think that necessarily any organized effort in industry to bring about a stabilization of prices means necessarily a fixed price. I do think that it would be infinitely better from the standpoint of employment, from the standpoint of the ownership, stockholders, management, and everybody concerned, if we had some means of protecting the public and at the same time enabling industry to self-regulate itself to the extent that it didn't interfere or conflict——

The CHAIRMAN (interposing). Would you like to have a system under which industry could stabilize the price without this annoyance to which you refer from the Federal Trade Commission and the Department of Justice?

Mr. KELLEY. Not necessarily that, because I am not only interested in price; I am equally interested in cost, and I am aware of the vice of the too wide fluctuations that occur not only in the price of our product, but in the price of products in general through the inability of those who are engaged in the industry to properly cooperate to appraise the factors as far as they can be ascertained.

The CHAIRMAN. Do you believe that that cooperation should be carried on by industry without the intervention of Government at all?

Mr. KELLEY. Absolutely no. I believe that that cooperation should be subject to regulation but not be regulated by.

The CHAIRMAN. What do you mean by "subject to regulation but not be regulated by"?

Mr. KELLEY. I mean exactly the sort of cooperation that is accorded the agricultural interests of our country under the Capper-Volstead law,[1] where it is perfectly legitimate to cooperate in the production, the distribution, and the sale of agricultural products, but upon complaint of anybody made to the Secretary of Agriculture, an investigation is ordered, a cease and desist—if the public interest is involved—is issued, and disobedience of that means prosecution.

I would take that as a model and I would follow it through and I would enable industry, instead of facing a criminal court and a jail sentence, to sit down and intelligently discuss its problems; I would permit that to be done. I would require the minutes, and the agreements if any, to be filed with a Government body like the Federal Trade Commission or the Secretary of Commerce, and I would have Government authorized to investigate, to regulate, and to compel industry to conform, but I would not have industry regulated until the public interest was involved in the conduct of business.

The CHAIRMAN. In other words, you would permit the leaders of various competing concerns to assemble together and to determine for themselves, without any representation on the part of the consumer, what the price should be of a particular commodity?

Mr. KELLEY. No, I think perhaps the consumer—I am not——

The CHAIRMAN (interposing). This is all very vague; I am just trying to develop the idea; it is of most importance.

[1] For text of Capper-Volstead Act see infra, p. 13579 et seq.

Mr. KELLEY. Sure, I think it is; I think it is the ultimate objective of this committee to evolve something of that kind, if I understand its purpose; but, Senator, I wish, if I may suggest, that we could get away from the idea that price is the sole objective of industry. It isn't. It is employment, it is keeping our mills and our mines open and our smelters going, it is relating the supply and demand, in other words.

The CHAIRMAN. I think that is generally understood, but in any discussion it is necessary to go at it piecemeal and to take one factor at a time. We just happened this morning to be discussing price and the relationship between the price which was agreed upon abroad without the prohibitions of the anti-trust laws, and the price which developed within the United States where the anti-trust laws were in full force and effect. Would you permit, then, the executives of competing concerns to agree upon the price without representation by the consumer?

Mr. KELLEY. I think, to answer your question fairly, if we could have the consumers represented it would be infinitely better. My experience is that consumers, within reasonable limitations, are not nearly so much concerned with the actual price as they are with the fluctuations of the price which jeopardize their business and their inventories.

The CHAIRMAN. Then would you have this operation of the executives of competing concerns carried on publicly or privately?

Mr. KELLEY. I wouldn't care if you had a Government representative—as a matter of fact we invited Government representatives into our organization and asked them to assign them. I wouldn't care if you had representation by Government, and I would require the minutes of every meeting, every minute, every account of such a trade association, to be filed with the United States Government in a properly designated place. It would be open to the press, it would be open to the scrutiny of anybody. The time has come when if we are going to do something constructive in industry, in my opinion, if I may say so, you have got to get away from the narrow prohibitory restrictions of a statute that was passed nearly 50 years ago.

The CHAIRMAN. Your suggestion is not unlike that which was made by Assistant Attorney General Thurman Arnold a few months ago with respect to what should be done in industry. Are you aware of that?

Mr. KELLEY. No; I am not.

The CHAIRMAN. I suspect that many business executives would regard it as being a rather extraordinary thing that the Assistant Attorney General, Mr. Arnold, should make a suggestion so closely akin to one that you have made.

Mr. KELLEY. I don't want to impose upon the committee.

The CHAIRMAN. You are not imposing upon us; we are imposing upon you, maybe.

Mr. KELLEY. You will find my views, for whatever they are worth, exactly along this line, set forth in an address I made before a symposium of lawyers, educators, and industrialists, that was called by New York University. I think it was in 1931. In that I made this criticism of our Sherman law.

The CHAIRMAN. That was in 1931?

Mr. KELLEY. That was in 1931.

The CHAIRMAN. By the way, may I interject at this point that as long ago as that, as a matter of fact, throughout the existence of this Export Association, you were being subjected to what you call annoyance by representatives of the Government?

Mr. KELLEY. It threatened to be more than annoyance.

The CHAIRMAN. I mean it wasn't a new manifestation by any manner of means.

Mr. KELLEY. Oh, no. It didn't start in '32; that was back in 1922 or '23.

The CHAIRMAN. That is right; that is what I was trying to develop.

Mr. KELLEY. I want to point this out. I think it illustrates one fundamental reason why businessmen criticize our antitrust laws. If I may read it:

No proper criticism lies against the Court

I am referring to the Supreme Court of the United States

for its decisions upon this law, but rather against the Congress which has placed upon the Court the impossible duty of giving effect and consistent interpretation to the law. That such a condition exists is demonstrated by an examination of decisions of the Court. Out of 95 cases involving a construction of the Sherman Anti-Trust Act, Clayton Act and Acts of the Federal Trade Commission, the Supreme Court was unanimous in its decision 53 times; it differed, 5 to 4, six times; dissenting opinions by three judges were reported 19 times, by two judges 6 times, and by one judge 11 times, a total of 42 cases, or more than 44 per cent, in which dissents existed. Of the 95 cases referred to, the decisions of the lower court were either reversed or modified in 48 cases.

I think that is a commentary that is more convincing as to the uncertainty, the impossibility, of construction in interpretation of those laws than any statement that anybody could make.

The CHAIRMAN. Well, then, your feeling is that the Sherman antitrust law is so uncertain that it ought to be repealed or amended?

Mr. KELLEY. Yes; frankly, but I don't believe that you will ever repeal or amend the Sherman antitrust law, and I don't think it should be without setting up proper regulatory authority in the Government; but I draw the distinction that I did in the beginning. In my opinion, respectfully, industry should be subject to regulation whenever the public interest requires. It should not be constantly regulated by Government, because the functions of the two are completely independent.

The CHAIRMAN. I have had occasion to state many times my own belief, which may not altogether be relevant here, that while industry should be regulated in the public interest it should not be subject to control by Government. Is that the distinction you have in mind?

Mr. KELLEY. Possibly not. We would have to give a good deal of thought to elaborate those distinctions, and I didn't know they were coming in. I would be very glad to discuss it with you.

Senator KING. Having wandered so far afield in projecting other questions into consideration in this matter, were you aware of a measure which was presented several years ago, 3 or 4 years ago, to the Chief Executive and others, which sought, as I interpreted it, to carry out not only the letter but the spirit of the Federal Trade Commission Act, which was followed by another one, and that measure provided that businessmen in any industry might meet together with the representatives of the Federal Trade Commission in sort of a forum to present their problems, discuss what their activities were to be, and discuss the questions of prices and of cooperation, and the Federal Trade Com-

mission then, having all of the views of a given industry, the copper industry or any other industry, would chart a course which might be pursued by the industry without being charged with violation of law. In other words, the Federal Trade Commission would be a sort of court that would pass upon the questions presented, and then give a green light for them to follow so long as they were within that court. I have thought that a measure of that kind would have more clearly carried into effect the purpose of the Federal Trade Commission Act, as it was conceived by Woodrow Wilson, than any measure that might be suggested.

Mr. KELLEY. I don't doubt it. Of course, it was originally, as you suggest, the whole conception of Wilson and the Federal Trade Commission not only to have a regulatory body, but also to provide a place to which industry could go for advice, to provide a Government body that would throw a shield around the contemplated action of businessmen and not leave them to the uncertainty of doing something and then finding out that they incurred a penalty.

Senator KING. I suggest we move along.

Mr. O'CONNELL. May I also say something that is slightly irrelevant? While we are going so far afield it seems to me proper for me to remark that your suggestion, while it may have a great deal of force, is essentially a very radical change from the type of industrial organization that the Sherman Act is intended to create and continue, because there isn't a shadow of a doubt but what the type of cooperation between industry, between competitives, so-called, of an industry that you envisage and that you think is proper and should be permitted, could not be done under the Sherman Act. Isn't that pretty clear?

Mr. KELLEY. No; it couldn't be.

Mr. O'CONNELL. So that your view is that the Sherman Act, which is intended to implement a competitive system between independent enterprises in the same line of endeavor, has become obsolete, if it ever was any good, and that it should be repealed and should have substituted for it some other type of Government interpretation or control, whatever you want to call it. Frankly, I think you are the first witness that we have had before this committee that was willing to go that far, the first one that I can recall. A number of witnesses pointed to the system as it exists in England and other countries and implied that they thought mutual cooperation between competitors should be permitted, but when they were asked the specific question as to whether they would repeal the Sherman Act, they all said no. You are inclined to think that it should be repealed?

Mr. KELLEY. I would repeal or amend it and substitute something else. Now you are never going to get a situation where man is not going to have the instinctive desire to be protected against monopoly and against unfair aggression on the part of anybody.

Mr. O'CONNELL. May I also interject there that you are never going to get away from possibly an equally important desire to conspire and to combine.

Mr. KELLEY. I am not so sure about that; I have found that in my business experience——

The CHAIRMAN (interposing). You recall, of course, the famous quotation from Adam Smith, who said that business executives never get together but that they try to fix the price.

Mr. KELLEY. I regard Adam Smith with great reverence.

The CHAIRMAN. I thought probably you did.

Senator KING. Following the World War, all industries, the copper industry and the mining industry, wool, and agriculture, all the manufacturing industries, were in sort of a chaotic condition, were they not?

Mr. KELLEY. Completely.

Senator KING. Stocks had been accumulated in some industries far in excess of any immediate demand and, therefore, a situation was presented which would prevent sort of a uniform course and which would result in fluctuation in prices, and it was considered wise and proper, I know in the wool industry, for efforts to be made to arrest a movement that would destroy the market absolutely, and I know that our Government conferred with Great Britain. I was in a conference for the purpose of regulating or stabilizing the price of wool so that the wool industry would not be completely destroyed, or at least the sheep men would not be destroyed by reason of the demands of the banks that they meet their obligations. Using that as sort of a basis, was it not almost impossible to conduct business without great variation in prices and some attempt to stabilize the market, so that there would be a bottom somewhere and all industry would not be destroyed, or at least so injured as to make it difficult to recover.

Mr. KELLEY. Well, I say "yes."

Senator KING. And that is the situation in which the mining industry with respect to lead, zinc, and copper and the metals generally found itself.

Mr. KELLEY. More particularly that industry because it had been more overexpanded as a matter of necessity than others during the period of the war.

Senator KING. So that that led in part at least to the forming of the Copper Export Association. Many of the copper mines and copper producers were heavily involved by reason of the production to meet the demands of the Government during the war. They had incurred obligations, and it became necessary that something be done in order to prevent a collapse of the industry, or some branches of the mining industry.

Mr. KELLEY. That is right. It was a very difficult situation.

Mr. SCOLL. I have just one more question on the Copper Export Association. What happened to the Copper Export Association, Mr. Kelley?

Mr. KELLEY. The Copper Export Association finally broke up due to two causes. One was the withdrawal of certain members, led by the Miami Copper Co., who was one of the producers who continued operating during the period subsequent to the pool, as shown on the chart yesterday. There was a change, I believe, in the selling organization of the American Smelting & Refining Co. under which the American Smelting & Refining Co.'s activities became reduced, so far as selling was concerned, largely to those of a custom smelter. There was an increase in competition from nonmembers abroad. There was a constant undercutting of price, and certain members felt that they were holding the umbrella, and it was more desirable to have freedom, and so gradually by withdrawals it lost its importance. And, as I said before, the second thing at that time was that we were under a very severe scrutiny by the Federal Government. Our files had been

examined and taken, we had all been subjected to any number of oral examinations, and some of the producers felt that it wasn't worth while.

Mr. Scoll. The principal factor of break-up, however, was the competitive situation?

Mr. Kelley. I think that is true.

Mr. Scoll. It was no longer profitable to the members to work together in the Export Association?

Mr. Kelley. Against the outside competition.

Mr. Scoll. Copper Export Association was absorbed by Anaconda, I believe. Isn't that correct?

Mr. Kelley. Well, Copper Export Association was a nonprofit-making company. It was financed to a very limited extent by a sale of preferred shares to the larger producers, or to all the producers who were interested, and then the common shares were the membership shares that exercised the voting power. As these members withdrew, we took over their preferred stock and after it ceased its activity as a joint selling organization we amended the articles of incorporation and made it the subsidiary company of Anaconda which handled our export business, so that the name was perpetuated and exists today. Is that what you want?

Mr. Scoll. Yes.

The Chairman. But it no longer represents——

Mr. Kelley (interposing). It represents nothing but Anaconda subsidiaries.

The Chairman. What position do the American producers now occupy with respect to world trade in copper?

Mr. Kelley. We have got to draw a distinction between American producers with production within the United States and American production controlled without the United States, and American-owned production.

They occupy a very formidable position in the for gn market due to their ownership and control of great producing units outside the United States; but American producers within the United States, so far as United States production is concerned, are not a significant factor in export markets.

The Chairman. And American producing companies do control large sources of copper abroad.

Mr. Kelley. Yes.

The Chairman. And they ought to occupy a dominant position abroad in the ownership?

Mr. Kelley. A very important position.

The Chairman. Mr. Scoll, what is your plan now?

Mr. Scoll. If it please the committee, I think we might recess at this time and then continue this afternoon, unless the committee prefers to sit longer.

The Chairman. Mr. Kelley will be on the stand this afternoon?

Mr. Scoll. Yes.

The Chairman. Do any members of the committee desire to ask any questions at this time? If not, the committee shall adjourn until 2 o'clock.

Mr. Scoll. That will be fine.

(Whereupon at 12:05 p. m., a recess was taken until 2 p. m., of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:05 p. m., upon the expiration of the recess.)

The CHAIRMAN. The committee will please come to order. Are you ready to proceed, Mr. SCOLL?

Mr. SCOLL. Yes, Senator.

COPPER EXPORTERS, INC., 1927–1931

Mr. SCOLL. Mr. Kelley, I would like to take up with you now the export association formed by the copper producers which was known as Copper Exporters, Inc. It was formed I believe in October 1926?

Mr. KELLEY. That is right.

Mr. SCOLL. You were the president of Copper Exporters, Inc., were you not?

Mr. KELLEY. I was.

Mr. SCOLL. And that too was a Webb-Pomerene corporation?

Mr. KELLEY. Right.

Mr. SCOLL. Now, unlike the previous association we were discussing, that is, Copper Export Association, this new one included both United States producers and foreign producers, isn't that correct?

Mr. KELLEY. Yes.

Mr. SCOLL. I would like to offer at this time a list entitled "Names of Members of Copper Exporters, Inc.," which was prepared by Mr. Eckert, the former manager of Copper Exporters, Inc., under your direction, I believe. Before I offer it, however, I would like you to explain one point. In addition to the names of the members who are on this list, there is shown a list of producers whose production was sold to or by members or associates. Now were those producers of copper controlled by members of the Exporters, Inc.? That is, was the sale of their copper controlled?

Mr. KELLEY. Yes. For the most part they were either controlled as subsidiaries or smaller producers, whose production would not warrant their maintaining their own selling organizations.

Mr. SCOLL. I think for the information of the committee I might just read the names of the foreign producers who were included in this association.

The CHAIRMAN. May I have a copy of it?

Mr. SCOLL. The Andes Copper Mining Co. Now that was a subsidiary of Anaconda?

Mr. KELLEY. Right.

Mr. SCOLL. The Chile Exploration Co.—that also was a subsidiary of Anaconda?

Mr. KELLEY. Yes.

Mr. SCOLL. Henry Gardner—who was Henry Gardner?

Mr. KELLEY. Henry Gardner is a metal dealer in London who formerly was connected with the old Metallgesellschaft and who acts as a selling agent for a number of producers outside of the United States.

The CHAIRMAN. Is he incorporated?

Mr. KELLEY. It originally was a partnership. I think he became incorporated about some years ago when he became affiliated with the British Metal Corporation.

The CHAIRMAN. So that actually it is not a person now but a legal entity?

Mr. KELLEY. Legal entity.

Mr. SCOLL. Aron Hirsch & Son; who were they?

Mr. KELLEY. Aron Hirsch & Son was an old German metal dealing firm, and that I am sure was a partnership.

Mr. SCOLL. They were sellers, probably.

Mr. KELLEY. They were buyers and sellers.

Mr. SCOLL. In other words, dealers?

Mr. KELLEY. Dealers.

Mr. SCOLL. Then Mansfeld & Mansfeldscher; that is the old Mansfeld producer, isn't it?

Mr. KELLEY. In Germany.

Mr. SCOLL. Been in operation over a thousand years, I believe?

Mr. KELLEY. Very long.

Mr. SCOLL. And not very important?

Mr. KELLEY. No.

Mr. SCOLL. Metallgesellschaft—they were dealers or producers?

Mr. KELLEY. Dealers.

Mr. SCOLL. Haut Katanga?

Mr. KELLEY. Haut Katanga was the very large Belgian producer.

Mr. SCOLL. Hoboken?

Mr. KELLEY. Hoboken is an affiliate of Katanga, engaged in the custom smelting and refining business at Hoboken in Belgium.

Mr. SCOLL. And the South American Products Corporation—what connection did that have with any of the others?

Mr. KELLEY. Really, I don't know; it is a very small entitity.

Mr. SCOLL. Unimportant?

Mr. KELLEY. Unimportant.

Mr. SCOLL. Rio Tinto?

Mr. KELLEY. I withdraw my answer as to the South American Products, because I just don't know.

Mr. SCOLL. Now, Rio Tinto, can you identify them?

Mr. KELLEY. Rio Tinto is a very old British controlled company operating in Spain.

Mr. SCOLL. Then we have American Metal, Canada.

Mr. KELLEY. That was an organization affiliated with the International Nickel Co. in the refining business and I think acted as the sales agency for the International Nickel Co.

Mr. SCOLL. The British Metal Corporation?

Mr. KELLEY. The British Metal Corporation was a corporation that was formed under the auspices of the British Government during the late war—I mean the first World War—and they handled very largely the product, the metal product, of Empire producers at that time.

Mr. SCOLL. They were dealers, were they not?

Mr. KELLEY. They were dealers and selling agents.

Mr. SCOLL. Roan Antelope?

Mr. KELLEY. Is a Rhodesian producer.

Mr. SCOLL. They didn't come in until sometime later, I observe.

Mr. KELLEY. After 1931.

Mr. SCOLL. And Bor?

Mr. KELLEY. Bor is a copper producer in what was formerly Serbia, now part of Yugoslavia and is an important European producer.

Mr. SCOLL. Boleo?

Mr. KELLEY. Boleo is a small copper producer in Lower California, the product of which is sold, I think, through the American Smelting & Refining Co.

Mr. SCOLL. Now Greene Cananea, which I mentioned before, is an Anaconda subsidiary?

Mr. KELLEY. Subsidiary.

Mr. SCOLL. So that the Copper Exporters, Inc., comprised virtually the entire important copper producers and dealers in the world?

Mr. KELLEY. Very largely.

The CHAIRMAN. How many of them were subsidiaries of Anaconda, these members?

Mr. KELLEY. I should say four or five.

The CHAIRMAN. Four or five.

Mr. KELLEY. International which didn't hold membership; International, Chile, Andes and Greene.

The CHAIRMAN. Of course there are other subsidiaries of Anaconda which were not members of the association?

Mr. KELLEY. Oh, yes.

The CHAIRMAN. Are they producers?

Mr. KELLEY. Some are producers that are affiliated with Anaconda, but are not strictly subsidiaries, like Walker, Mountain City, Inspiration; but we represented all of them in the organization.

Mr. SCOLL. May I offer this as an exhibit?

The CHAIRMAN. Without objection the exhibit is received.

(The list referred to was marked "Exhibit No. 2117" and is included in the appendix on p. 13441.)

ADMISSION OF FOREIGN PRODUCERS TO MEMBERSHIP IN COPPER EXPORTERS, INC.

Mr. KELLEY. There was an interesting difference, if I may suggest, in this set-up between that of the old Copper Export Association. In the old Copper Export Association we did not have foreign associates. About the time that there was a terrific slump in the silver market. We were urged by government authorities, Senator Pittman and others, to form a Webb-Pomerene corporation to handle silver as an offset to the London metal dealers in that matter, and in that situation, we took the matter up with our Department of Commerce. As I recall it, Mr. Hoover—Secretary Hoover—got a ruling from the Department of Justice that under the Webb-Pomerene Act we did not need to be an association exclusively of American exporters but might have foreign associates.

The CHAIRMAN. Such a ruling was handed down by the Department of Justice?

Mr. KELLEY. To the Department of Commerce.

Mr. SCOLL. Do you know approximately when that occurred?

Mr. KELLEY. I can't recall the date, it was preceding this organization.

Mr. SCOLL. It was before October 1926?

Mr. KELLEY. I think so. After a very thorough study of the situation, we felt that it was an impractical thing to attempt to organize a silver association for the reason that silver was not so much affected by current production as by the great bulk of silver that had been accumulated over the centuries and was locked up in the monetary

reserves of various nations, and silver was not a commercial thing but rather dependent upon its function as a money. But it was in part the idea that we explored at that time. That was the genesis for setting up the Copper Exporters as it subsequently came to be.

The CHAIRMAN. How did you come about to seek this ruling from the Department of Justice that membership of foreign producers and dealers would not be prohibited by the Webb-Pomerene Act?

Mr. KELLEY. It was because we realized the utter futility in the silver situation of endeavoring to do anything unless we had the cooperation of silver producers outside the United States.

The CHAIRMAN. And was it in connection with the silver program rather than in connection with the copper program that you obtained that ruling?

Mr. KELLEY. Yes; at that time it was.

The CHAIRMAN. But that was prior to the organization of this particular corporation?

Mr. KELLEY. Right.

The CHAIRMAN. And because of that ruling, you brought in the foreign producers?

Mr. KELLEY. That was a factor in the situation, but Senator, it was the very fact that the foreign production had increased so very much during the twenties that we realized that an export association without the inclusion of foreign producers would be futile.

Mr. SCOLL. You stated that that memorandum was from the Department of Justice. Are you sure it was the Department of Justice or was it the Federal Trade Commission?

Mr. KELLEY. My recollection is it was the Department of Justice. It may have been the Federal Trade Commission. There was a governmental ruling.

Mr. O'CONNELL. May I inquire, do you know?

Mr. SCOLL. The reason I asked the question was that in our researches for this hearing we ran across a reference to the fact that a Dr. Notz of the Federal Trade Commission was interested in this question and had given his opinion that the membership of foreign organizations in Copper Exporters, Inc., was within the purview of the Webb-Pomerene Act.

Mr. KELLEY. That is right. I recall it was taken up with Dr. Notz in regard to this particular organization. I am not sure where the previous ruling came from.

Mr. O'CONNELL. I presume it was taken up with Dr. Notz, or whoever it was taken up with, because in the opinion of your counsel there was some doubt as to the legality?

Mr. KELLEY. The law was not entirely clear, and as I recall the language of the Webb-Pomerene Act it referred to American producers engaged in export trade. I think that is the language. We didn't know whether that was broad enough to cover an association with producers outside the United States or not, and we sought advice.

Mr. O'CONNELL. I would be quite interested if we could get a copy of whatever opinion was written, because that is, as I understand it, the type of situation that doesn't often arise, or if it does arise is not dealt with in that way. I do not understand that it is now considered proper for the Department of Justice or the Federal Trade Commission to, in effect, give advisory opinions and render declaratory rulings.

Mr. KELLEY. Please understand, I didn't say that the Department of Justice gave us an opinion, because we know that is not true; but I think the matter was taken up with the Department of Commerce and I think the Department of Justice advised the Department of Commerce as a coordinated branch of the Government. They did not advise us, and I don't know that Dr. Notz advised us other than not entering opposition. We never did get direct advice.

Mr. O'CONNELL. As you know, there has been quite a bit of discussion in recent years about the advisability of having some agency of Government empowered to, in effect, render declaratory rulings or advisory rulings to people in your position.

Mr. KELLEY. Correct.

The CHAIRMAN. This was quite obviously a declaratory ruling of that character. Did you receive a copy of it?

Mr. KELLEY. No; I can't recall that I received it. Our counsel went to the Federal Trade Commission, I know, and consulted Dr. Notz, and I think I had some consultations with him myself. They were fully advised of the plan.

The CHAIRMAN. Did you ever receive any written communication from the Department of Justice or the Department of Commerce with respect to this?

Mr. KELLEY. No.

The CHAIRMAN. How did you know that that ruling was made?

Mr. KELLEY. We inferred that it was made from the fact that there was no opposition. Counsel advises me that the opinion of the Department of Justice was published by the Department of Commerce and circulated publicly. It was not addressed to me or anybody in particular.

The CHAIRMAN. Does your counsel have a copy of it?

Mr. KELLEY. He is trying to find it.

The CHAIRMAN. Proceed, Mr. Scoll.

Mr. O'CONNELL. I think it is of some general interest that you could have subsequently been prosecuted or legal proceedings could have been brought by the Department of Justice or the Federal Trade Commission in a strictly legal sense, in spite of that published opinion or ruling.

Mr. KELLEY. That issue was not involved; that issue was never raised by the Government that we had foreign associates.

Mr. O'CONNELL. I understand that, but I was merely illustrating what I understand to be the fact, and that is that such rulings as are made informally under existing law are not binding on the Government and do not, strictly speaking, protect anyone who relies upon them.

Mr. KELLEY. I so understand.

Mr. O'CONNELL. And that also was one of the things that has been discussed in connection with the problem of rendering declaratory rulings, in that if such a technique were devised it would afford legal protection to persons who rely on it which is not now available.

Mr. SCOLL. In the Wall Street Journal, Tuesday morning, October 12, 1926, there was published a press release which purported to be issued by you, which reads in part as follows:

> Copper Exporters, Inc., is an organization of American copper producers associated with whom are certain foreign producers and sellers of copper. The purpose of the organization is to endeavor to eliminate in foreign countries the harmful speculation that causes wide fluctuations in price, unwarranted by industrial

factors in European markets, and tends to destroy confidence in the integrity of such price and the stability of the business.

Further along the statement says:

The need for such an organization must be manifest to anybody who has followed the trend of the foreign copper market, especially since the war. Wide fluctuations in prices, working hardships on producers and consumers alike, speculative movements engineered by foreign dealers who have no financial interest in the production of the metal, have produced a situation in foreign markets intolerable from the producers' point of view.

That in general states the purposes of the organization of Copper Exporters, Inc., does it not?

Mr. Kelley. It does.

Mr. Scoll. Now, if you will, will you refer to the chart which is "Exhibit No. 2100"[1] and look at the period from 1921 to 1926? Except for the rise in 1922 and '23, which I believe was caused by the stock situation in 1921 and '22, having been liquidated through the pool—a demand having been created which Copper Exporters Association filled—except for that interlude would you say that the price fluctuations from 1921 to '26 were wide fluctuations?

Mr. Kelley. Comparatively; yes. You must realize, Mr. Scoll, that what you show here in a very small scale of probably three-quarters of an inch covers the transactions of the year and undoubtedly has been worked out to an average trend over that year. It doesn't show the day-to-day transactions. It does show, however, that in that period, contrary to normal commercial tendencies, in '21 you had the price of standard in midyear above the price of electro, and if you will look at the difference in the spread as indicated by this chart, you will see that there was no uniformity of difference between electro and standard. Now that lack of uniformity was due entirely to speculative influences. It was due to the fact that when the standard market advanced to or above the electro, the speculators were buying forward positions upon the futures, as we call it, upon the basis that the price would go up, and when that spread widens unduly it is because they are speculating on the short side in the belief that the price is going to fall. It is the future market rather than the spot market that controls.

Mr. Scoll. I believe that one of the intolerable aspects of this situation that you are referring to arises from the fact that these speculations in the London market affect the domestic prices. Isn't that right?

Mr. Kelley. They undoubtedly do; yes.

Mr. Scoll. Well, then, I would like to refer you to the table which accompanies "Exhibit No. 2100." Have you a copy of that table there?

Mr. Kelley. Yes.

Mr. Scoll. The domestic f. o. b. refinery price of New York electrolytic, monthly, in 1924 varied from 12.40 to 14.26. That is approximately 2 cents. The 1925 monthly average varied from 13.34 to 14.49. That is a little over a cent. At the beginning of 1926, up to October when the Copper Exporters, Inc., was formed, the price ranged from 13.59 as high as 14.17, less than a cent. Those, to my way of thinking, were not very wide fluctuations. Am I correct in that assumption?

Mr. Kelley. I would differ with you as a matter of opinion. I would say this in explanation. What we are concerned with in the

[1] Appendix, p. 13394.

business is the daily fluctuation. I myself have sat in the London Metal Exchange at the close of 'Change, as they call it, and seen somebody come in and offer 50 tons of standard, but if there was no buyer immediately there to take it, standard would close weak. That close of the London market would be telegraphed or cabled to New York and the copper market in New York would be affected to some extent adversely by a sale of 50 tons of copper.

Mr. SCOLL. At that time weren't you also concerned with the increasing production of your foreign competitors?

Mr. KELLEY. Very much.

Mr. SCOLL. So that it would be correct to say that the fluctuations in price alone were not the cause for the formation of Copper Exporters, but it was a combination of factors including the threat of competition that had come into being?

Mr. KELLEY. That is right.

Mr. SCOLL. You mentioned a while ago that the fluctuations of the London price had their effect on the domestic price. Will you explain just how that occurs?

Mr. KELLEY. Well, for instance, take the first 4 months of a representative year.

Mr. SCOLL. Excuse me for interrupting you. Maybe I can ask you a question or two that will help. If a domestic buyer was looking for the best price possible to obtain, he would, I presume, look at the London market and see what was happening over there, would he not?

Mr. KELLEY. He would.

Mr. SCOLL. And similarly the sellers in order to obtain the best price from their side would not sell below what the price was in London.

Mr. KELLEY. We might.

Mr. SCOLL. So that if Copper Exporters, Inc., could remove the influence of the London speculators from the world market, Copper Exporters would stabilize not only foreign prices but United States prices as well.

Mr. KELLEY. There would be bound to be an interrelation between the prices; you can't avoid that, I think.

Mr. SCOLL. If I may pursue that just one step further, the price of fabricated copper products is geared to the price of electrolytic copper. Isn't that so?

Mr. KELLEY. Correct.

Mr. SCOLL. So that fluctuations—speculation in London—would indirectly affect the price of fabricated articles?

Mr. KELLEY. I think so.

Senator KING. Isn't it true that foreign prices of commodities which are used in foreign countries as well as in the United States determine in a measure domestic prices; that is to say, they influence domestic prices and domestic prices might influence foreign prices?

Mr. KELLEY. True.

Senator KING. That was true in silver, lead, zinc, and wool.

Mr. KELLEY. I can't answer about wool, but in world-wide markets of metals and particularly before there was a restrictive tariff or excise tax on copper coming into the United States, you had one market practically, and that was a world-wide market. You might have a fluctuation temporarily on a speculative situation, but the

markets normally would settle down to the respective differences of transportation, carriage, and insurance.

The CHAIRMAN. This was an effort, in other words, to stabilize the world price.

Mr. KELLEY. Yes, without using—remember, always—the power of the export association to artificially or intentionally affect the domestic markets.

The CHAIRMAN. Well, then, just how did you go about attaining the objective you had in mind?

Mr. KELLEY. We never did attain it.

The CHAIRMAN. You didn't attain it at all?

Mr. KELLEY. No. We may have helped, but it was never perfect, because we not only had our competitive situation at home, but—remember—we were up against the most intensive competitive situation on the other side as well, and really, what it amounted to was to prevent the American producers, largely, from cutting each other's throats in foreign business, and that is what we had been doing.

The CHAIRMAN. What part did the foreign producers who were members of this organization play in that, in preventing the American producers from cutting one another's throats?

Mr. KELLEY. Before the formation of the export association, they played a very important part.

The CHAIRMAN. Oh, yes.

Mr. KELLEY. But we never had in the export association a complete control of copper. There was always outside competition.

The CHAIRMAN. But you had a certain objective in bringing these foreign producers into the association.

Mr. KELLEY. Right.

The CHAIRMAN. That objective was the stabilization of price, and you say it was not made effective. Am I right?

Mr. KELLEY. Not completely.

The CHAIRMAN. Well, now, to what extent was it made effective, and what part did the foreign producers play in helping you to make it effective?

Mr. KELLEY. Of course, that is a matter of conjecture.

The CHAIRMAN. I know of nobody better to conjecture about it than you.

Mr. KELLEY. You see, Senator, how far we were successful we don't know, because we don't know what the result might have been if we had not made the effort; but I think it helped.

The CHAIRMAN. Very well. Now, what part did the foreign producers play in helping to bring about this partially successful result?

Mr. KELLEY. Those who came into the first association, let me say, geared their price to the same price as our copper delivered on the other side, and took an allocation based upon their production, but in this association, it differed from the old association. There was no joint seller. Everybody who had them sold his copper through his own organizations.

The CHAIRMAN. You see, Mr. Kelley, this is a picture that is shaping up in my mind. Remembering your testimony of yesterday, you spoke about the magnitude of the foreign buyers of copper, and the concentration of control which had been perfected abroad over the action of these buyers. Then you said that American producers sought to meet

the adverse results of that concentration in Europe among the purchasers upon their selling price. To meet that you sought authority from Congress and received it to establish under the Webb-Pomerene Act an organization authorized by that act for the particular purpose of aiding American corporations in the world market in competition with concentrated agencies abroad. That is correct so far as we have gone.

Mr. KELLEY. Correct.

The CHAIRMAN. Now, that copper association went out of existence and a few years passed in which there was no such organization, and then this new corporation was formed and in this new corporation you brought foreign producers. In the first instance under the Webb-Pomerene Act you were setting up a combination of American producers to fight the foreign. Now, under the new organization, you have brought in the foreign producers as well. Now, why did you bring them in, and what part did they play, and were they helping you to protect American producers, or were you helping them to protect their interests?

EXTRAORDINARY INCREASE IN FOREIGN PRODUCTION

Mr. KELLEY. The reason that impelled us to bring them in was the extraordinary increase that occurred in the production of foreign copper. If you look at the production——

The CHAIRMAN (interposing). That is shown on "Exhibit No. 2100."[1]

Mr. KELLEY. So that by the mid-twenties—if I may ask you Mr. Chairman, to look at this chart,[2] you will see——

Senator KING (interposing). Has that been identified?

The CHAIRMAN. This is a chart I understand prepared by your organization?

Mr. KELLEY. The chart was prepared by our organization, but the data was taken from Government bulletins.

The CHAIRMAN. Yes, and it shows foreign copper production year by year from 1880 to 1936, approximately.

Mr. SCOLL. Shall we give it an exhibit number as 2118?

The CHAIRMAN. I was going to suggest that. This is "Exhibit No. 2118" offered by the witness Mr. Kelley and it may be accepted.

(The chart referred to was marked "Exhibit No. 2118" and is included in the appendix on p. 13442.)

Mr. KELLEY. If you look at that chart you will see that during the war period, foreign production went down. That was due to transportation difficulties, largely. Right after the war period, beginning along in the early twenties, you will see that the foreign production began to increase very rapidly. By the mid-twenties, about the time this organization[3] was perfected, it had increased on the chart that I have—which is a composite chart of what you are looking at—from a maximum before the war of about a billion pounds to about a billion eight hundred million pounds. It was in that period that Katanga came into large production, that Canada came into large production, and also that Chile very largely increased its production. And the result was, of course, we had an oversupply for any potential demand.

[1] Appendix, p. 13394.
[2] "Exhibit No. 2118," appendix, p. 13442.
[3] Copper Exporters, Inc.

The CHAIRMAN. Now, then, this chart would indicate, if I have correctly followed your testimony and the indications of the chart itself, that beginning with 1920, or shortly thereafter, production began to increase very markedly in Chile and to quite an extent in Canada. Is that right?

Mr. KELLEY. That is right.

The CHAIRMAN. Very materially in Katanga, also in Europe.

Mr. KELLEY. Right.

The CHAIRMAN. And in Japan it seemed to maintain practically the same level. It increased somewhat in Russia, somewhat in Mexico, somewhat in Peru, and in the others it was practically unchanged. The big production in Rhodesia did not come in until after 1930. That is the correct picture, is it not?

Mr. KELLEY. That is right.

The CHAIRMAN. Now, looking at "Exhibit No. 2100," I am impressed by the fact that during practically this same period, particularly when the Copper Export Association, Inc. was operating, and Copper Exporters, Inc. were operating—this increase of production was apparently accompanied by an increase in price.

Mr. KELLEY. I think not.

The CHAIRMAN. Well, now the Copper Export Association was in operation from 1919 through 1923. During that period in 1919, the latter part of that year, the price went from 15 cents to about 23½, apparently.

Mr. KELLEY. I will get that before me in just a moment.

The CHAIRMAN. I was looking at "Exhibit No. 2100."

Mr. SCOLL. Senator, I was going to take up that point.

The CHAIRMAN. I beg your pardon.

Mr. SCOLL. I will introduce the tables.

The CHAIRMAN. Very well. I am sorry for interrupting the orderly presentation of your case.

Senator KING. And in presenting it I wish you would ask, if you care to, that with the revival in business along in 1922, 1923, and up to 1929 there was an increased demand for copper and for all commodities.

Mr. SCOLL. Before we discuss the matter of prices, I would like to introduce this table showing the production controlled by the members and then proceed to a brief discussion and outline of how it worked.

The CHAIRMAN. What is this table and by whom prepared?

Mr. SCOLL. This table that I am offering is a table entitled "Share of World Production of Copper Controlled by Members of Copper Exporters, Inc., 1927–1931." It was prepared by the staff of the T. N. E. C. from figures compiled by Mr. R. R. Eckert, former manager of the Copper Exporters, Inc. The original figures which Mr. Eckert compiled came from the American Bureau of Metal Statistics, a statistical organization which is maintained by the producers; and were submitted to us at our request under the direction of Mr. Kelley.

The CHAIRMAN. Have you examined this exhibit Mr. Kelley?

Mr. KELLEY. I am not sure whether I have seen it but we have a copy.

The CHAIRMAN. Without objection the exhibit may be accepted.

Mr. SCOLL. I would like to make just one brief comment to explain the exhibit. It shows that in 1927, the members of Copper Exporters, Inc., controlled 93.8 percent of the United States production and that

in the same year they controlled 84.8 percent or 85 percent of the world production. Those figures varied slightly from time to time through the effective life of the organization to 1931. Generally speaking, the percentages were roughly from 91 percent to 93 percent of United States production and from 77 percent to 85 percent of the world production.

The CHAIRMAN. Is that substantially correct Mr. Kelley?

Mr. KELLEY. I believe so, yes.

The CHAIRMAN. The exhibit may be received.

(The table referred to was marked "Exhibit No. 2119" and is included in the appendix on p. 13443.)

The CHAIRMAN. Now, it would appear from this exhibit that this control just described by Mr. Scoll is to be observed in all the years covered, namely '27, '28, '29, '30, and '31. In those years, the Copper Exporters, Inc., controlled in excess of 90 percent of the United States production of copper and between 77.7 and 85.8 percent of the world production.

Mr. KELLEY. I would modify that, Senator, only by saying that it is incorrect to say that Copper Exporters, Inc., controlled that percentage of production.

The CHAIRMAN. Members of the Copper Exporters?

Mr. KELLEY. Copper Exporters itself exercised no control.

The CHAIRMAN. I didn't mean to leave that implication and I am glad you corrected it.

METHOD OF OPERATION OF COPPER EXPORTERS

Mr. SCOLL. What you meant to emphasize, I believe, Mr. Kelley, was that Copper Exporters, Inc., was primarily and solely a price-determining agency for fixing the foreign price, the export price of copper?

Mr. KELLEY. And clearing foreign transactions. It was a clearing-house.

Mr. SCOLL. It had no control, for instance, over the production policies of the members?

Mr. KELLEY. None whatsoever.

Mr. SCOLL. Or their sales?

Senator KING. You answer that affirmatively, "or their sales"?

Mr. KELLEY. Or their sales, except as they followed the rules. I think it is only fair to say this: In Copper Exporters, Inc., there was no such thing as a fixed price necessarily. Under the rules a price was fixed or set at which the members were willing to sell copper. If any member didn't wish to sell at that price there was no compulsion upon him to do so. On the contrary, if he wished to hold for a higher price he had a perfect right to do it. If, on the other hand, he wished to sell at a lower price he had a perfect right to do it. If one member decided that he preferred to sell at a lower price, he could do so. It was then the privilege of the other members to modify the previous price and participate in business at the lower price or not, as they saw fit. It was a perfectly flexible situation.

The thing that was eliminated in the foreign markets was the intense competition between one another.

The CHAIRMAN. Just how was that eliminated? If you say that the members were at liberty to disregard the price——

Mr. KELLEY. It was eliminated principally because the seller knew the truth. You referred the other day, I think, and I am sure Dr. Kreps did, about the inaccuracy of statement, to say the least, of the buyer as to what the other fellow is willing to sell for, and there was no place in the world where an industry suffered more from that than we did in European markets. The big purchasers of copper would play one selling agent against the other; nobody ever knew what the other fellow's price was. Going through the back door was a favorite occupation to cut the other fellow's price by an eighth of a cent in order to book the business. Now what this did, it brought out into the open at least what the price was of those who were participating in the business.

Mr. O'CONNELL. Well, Mr. Kelley, wasn't there in effect an agreement between the members of the Copper Exporters that they would sell at the price determined by it?

Mr. KELLEY. They would sell at that price unless they indicated to the association that they wouldn't, and they made that plain, you see.

Mr. O'CONNELL. But the freedom to which you refer was not an absolute freedom in the sense that you think of the ordinary competitor going out and selling his goods at whatever price he thinks proper?

Mr. KELLEY. That is right.

Mr. O'CONNELL. Quite different?

Mr. KELLEY. That is right.

Mr. SCOLL. In other words, if one of the members chose to close at a figure which was less than the so-called official price at the time, the others had a right to participate in the allocation of sales based on their production at that price?

Mr. KELLEY. If they indicated that they wished to do so.

Mr. SCOLL. Otherwise they had the option of either selling or participating at that price or staying out of the market?

Mr. KELLEY. Right. Staying out of the market until it was cleared. If it was a very inconsequential amount that was offered at a lower price, naturally the other members wouldn't all rush in to participate in it. In other words if a member said, "I want to sell 500 tons of copper that is in distress, and I want to cut the price for 500 tons," I should think it would not have been generally good policy for everybody to come in and say, "No; I want to get a share of that 500 tons." I don't think they did.

Mr. SCOLL. If I may use perhaps an inept analogy, it was like an elevator; they could get on and go up or down, or stay off?

Mr. KELLEY. Sure; a good analogy.

Mr. SCOLL. Now the working committees of the Copper Exporters, Inc., consisted of a New York committee, I believe, and a Belgian committee, isn't that correct?

Mr. KELLEY. A committee the headquarters of which was in Brussels. It was not a Belgian committee. It was an international foreign committee.

Mr. SCOLL. Sometimes referred to as the Belgian committee, or the Brussels committee?

Mr. KELLEY. The Brussels committee. Yes; that is right.

Mr. Scoll. I show you a list of members of the New York committee and ask you if that is a correct list.

Mr. Kelley. Yes; I believe it to be.

Mr. Scoll. I would like to offer this list entitled "Members of New York Committee of Copper Exporters, Inc.," as "Exhibit No. 2120."

The Chairman. It may be received.

(The list referred to was marked "Exhibit No. 2120" and is included in the appendix on p. 13444.)

Mr. Scoll. Similarly I show you a list of the members of the Brussels committee.

Mr. Kelley. Yes; I think that is right.

Mr. Scoll. I would like to offer that as "Exhibit No. 2121."

The Chairman. It may be received.

(The list referred to was marked "Exhibit No. 2121" and is included in the appendix on p. 13444.)

Mr. Scoll. Now, incidentally, the members of the New York committee were the heads of the respective selling agencies which they represented, were they not?

Mr. Kelley. Yes; I think they had alternate members who might sit for them if the heads weren't there.

Mr. Scoll. And therefore they were dealing not only in the foreign sales of their agencies but in the domestic sales as well—generally speaking?

Mr. Kelley. Yes.

The Chairman. Mr. Scoll, before you go on with that may I ask Mr. Kelley who the directors of Copper Exporters, Inc., were, and who the officers were who represented the foreign associates?

Mr. Kelley. They did not have any directors, as I recall it, in the domestic organization. They had an agreement which was entered into between the foreign associates and the United States organization, but they were not members of it.

The Chairman. Nor were they officers?

Mr. Kelley. Nor were they officers.

The Chairman. What was the type of the agreement?

Mr. Kelley. I think Mr. Scoll has it. It was the agreement generally to observe the same rules as bound the domestic members.

Mr. Scoll. In order to save time, Senator, I would like to offer several documents concerning the association which I will read into the record and offer them for the file. They are rather voluminous, and I think that unless the committee wishes to put them in the record I will name them.

Senator King. You will have them identified as exhibits, but not inserted in the record?

The Chairman. I think that will be quite satisfactory. The committee will accept your judgment on that. Just give us the list and names of the document.

Mr. Scoll. Certificate of incorporation, Copper Exporters, Inc.; Bylaws, Copper Exporters, Inc.; Schedule of Working Regulations, Copper Exporters, Inc.

(The documents referred to were marked "Exhibits Nos. 2122 to 2124" and are on file with the committee.)

Mr. Scoll. My previous remark does not apply to the members' agreement, which I wish to offer for the record: also the foreign associate agreement.

The CHAIRMAN. They may be received.

(The documents referred to were marked "Exhibits Nos. 2125 and 2126" and are included in the appendix on pp. 13444 and 13449.)

Mr. SCOLL. Do you recall what the distinction was, Mr. Kelley, what the important distinction was between the member's agreement and the foreign associate agreement?

Mr. KELLEY. I am afraid I do not.

Mr. SCOLL. Very well. The agreements will speak for themselves. Now, the New York committee, I believe, was the committee which originated the prices and then referred them to the Brussels committee, is that correct?

Mr. KELLEY. As a matter of routine I should say that is correct, although the New York committee was receiving constant advices, I suppose, from the Belgian or Brussels committee.

Mr. SCOLL. And the New York committee based the export prices on the domestic prices?

Mr. KELLEY. Very largely.

Mr. SCOLL. Now why was electrolytic copper taken as the standard for price quotations?

Mr. KELLEY. Because electrolytic copper particularly at that time was the standard commercial brand of copper.

Mr. SCOLL. But later arrangements were made for the quotation of prices for other types of copper?

Mr. KELLEY. That is right.

Mr. SCOLL. Including standard copper?

Mr. KELLEY. Right.

MOVEMENT OF COPPER PRICES UNDER COPPER EXPORTERS

Mr. SCOLL. Will you take the chart, "Exhibit 2100,"[1] if you have it there, and the table that goes along with it? Looking at the table you will notice that in the period from 1924 to 1926 the New York electrolytic price of copper reached a low of 12.39 in July 1924, and a high of 14.70 in January 1925. In other words, a fluctuation of 2.32 cents approximately, in a period from July 1924 to January 1925?

Mr. KELLEY. Yes.

Mr. SCOLL. That was the period after the break-up of Copper Export Association. Now turning forward to 1927 and 1928 you will notice that the New York electrolytic price was at a low in June 1927 of 12.37?

Mr. KELLEY. Yes.

Mr. SCOLL. That it rose in December 1928 to 15.84; in other words, a fluctuation of 3.47 cents during the 1927–28 period?

Mr. KELLEY. That wasn't a fluctuation; it was all in one direction.

Mr. SCOLL. All in one direction. Then in other words the record seems to indicate that there was a greater fluctuation in the price that C. E. I. was formed to stabilize after C. E. I. was formed than in the 3 years which preceded C. E. I. Is that conclusion correct?

Mr. KELLEY. No; not without taking into consideration what was happening in the world. Coming into the period to which we are addressing ourselves, from 1926 on began the terrific expansion, not only in the copper industry but in all industry, that culminated in the peak year of 1929 that preceded the collapse. I think you have a copy of this chart, haven't you, Mr. Scoll?

[1] Appendix p. 13394.

Mr. SCOLL. No, Mr. Kelley, I have seen it in your possession, but I have never had a chance to examine it closely. Do you have a copy of it?

Mr. KELLEY. I wish to submit that chart to the inspection of the committee for the purpose of showing the corresponding relationships between the price of copper and other basic materials.

The CHAIRMAN. Now what is this chart? It is labeled "Index numbers of price of electrolytic copper, wholesale price of raw materials and wholesale prices of all commodities, with 1913 as the base."

Mr. KELLEY. Right.

The CHAIRMAN. And the source is electrolytic copper prices quoted in Engineering and Mining Journal, wholesale prices of raw materials and of all commodities represent United States Bureau of Labor statistics index adjusted to 1913 base?

Mr. KELLEY. That is right.

The CHAIRMAN. Prepared by your staff?

Mr. KELLEY. The chart itself is prepared by our staff but the information is direct from the Bureau of Labor Statistics. Now, the index there will show you that going back to 1913 as a base, because that was before prices had been affected by the war situation and which, with due deference, Dr. Kreps, I think still forms a better base than 1926.

Dr. KREPS. Not for copper.

Mr. KELLEY. Well, for anything, in my opinion. You will observe the great fluctuation that occurred during the war period in the price of copper, in the price of all commodities based upon the labor index, and in the price of raw materials; and following that chart through you will see the decline that came after the war and then you will see that in the period to which counsel has just referred, '26, '27, '28, '29, not only did copper go up but it never reached proportionately the height of the prices of other materials, and you will also see from that chart that copper on a relative basis never sold as high as either the Bureau index for all commodities or the index for raw materials. I would like in this connection to show a chart which compares copper with other comparable metals, to wit——

The CHAIRMAN (interposing). Pardon me; if you desire we will admit this as an exhibit.

(The chart referred to was marked "Exhibit No. 2127" and is on file with the committee.)

The CHAIRMAN. May I make this comment before we leave this chart? This, as you have pointed out, is based upon an index price. "Exhibit No. 2100",[1] introduced by counsel, shows the fluctuations in the price of copper in cents, the actual price?

Mr. KELLEY. Yes.

The CHAIRMAN. And this is the index of price?

Mr. KELLEY. That is right.

Mr. SCOLL. And I may add by way of further explanation that the point of my question related only to a comparison of copper prices under C. E. I. and copper prices before C. E. I., and that we naturally would concede the truth, as well as the relevancy, of your contention that copper prices behaved in a certain relation to the prices of other wholesale commodities.

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[1] See appendix, p. 13394.

Mr. KELLEY. Yes. In other words, I didn't want the inference that copper was an isolated example of a rise in price during the period in question.

The CHAIRMAN. But, Mr. Kelley, examining your chart again, "Exhibit No. 2127," for the years '26, '27, '28, and '29 it is obvious from that chart that during this period the price of copper rose very markedly between '27 and '29 while the prices of raw materials and the prices of all commodities did not show any such rise.

Mr. KELLEY. It rose greater in proportion.

The CHAIRMAN. Copper rose much greater in proportion than the others?

Mr. KELLEY. Because it started from a much lower position.

The CHAIRMAN. And that was during the operation of Copper Exporters, Inc.?

Mr. KELLEY. Right.

The CHAIRMAN. So that perhaps you may be in a position to claim credit for that advance of copper price for the C. E. I.?

Mr. KELLEY. If we take a look at this chart——

The CHAIRMAN (interposing). Would you take the credit for that?

Mr. KELLEY. No; my modesty forbids. Because you had almost, I think, a comparable situation in lead and zinc and other nonferrous metals. Now in that period one other thing occurred. By that time the accumulated war stocks and the big surplus had entirely disappeared and the copper business was back upon a basis of current supply and demand.

Senator KING. And was there not a very increased demand then and for several years thereafter for use in the construction of the electric light plants? Didn't they use a great deal of copper for the transmission of electric energy?

Mr. KELLEY. I think you have a copy of this chart? [1]

Mr. SCOLL. Before we get to that chart may I ask you one more question?

Mr. KELLEY. I thought it was pertinent to what the Senator asked.

Mr. SCOLL. You will excuse me, Senator.

The CHAIRMAN. You may proceed and answer Senator King's question.

Mr. SCOLL. Please; and use the chart.

Mr. KELLEY. Senator King's question was directed to the increased demand for copper and copper products in this particular period, and I will answer, "Yes"; that was a factor, but I will let the detailed explanation go with your permission, because I think counsel intends to ask me that.

Mr. SCOLL. Yes.

Senator KING. All right.

Mr. O'CONNELL. I would like to ask a question. I would like to ask, in answer to the question that Mr. Scoll asked sometime ago. (I think we rather lost it.) Now, as I understood him, he asked if it were not the fact that the price of copper fluctuated to a greater extent in the 2 or 3 years following the creation of Copper Exporters, Inc., than it did during the 3 years prior to that; and I take it that the answer to that is, "yes", is it not?

Mr. KELLEY. No. It is a question of definition of fluctuation. My idea of fluctuation is up and down; it increased.

[1] "Exhibit No. 2128."

Mr. O'Connell. The range in price in that period?

Mr. Kelley. Increased.

Mr. O'Connell. Was greater and it was definitely on the increase, too, during that period?

Mr. Kelley. That is right.

Mr. O'Connell. It is also a fact, is it not, looking at the chart that you submit, that the price behavior of copper during the period of 1926 to 1929 was quite different from the behavior of the all-commodity index or raw-material index?

Mr. Kelley. It was more accentuated, but I think it was relatively not more accentuated than the price of other nonferrous metals.

Mr. O'Connell. That may be so. I was merely pointing out the difference in price behavior of the things shown on that particular chart.

Mr. Kelley. That is correct.

Mr. O'Connell. Now, would you say that there was a close relationship or any relationship between the existence of the Copper Exporters, Inc., and that price behavior?

Mr. Kelley. I would say that unquestionably there was some relation, but I don't think it was the principal factor; and that is the subject I would like to explain.

Mr. O'Connell. Of course, the main purpose of the Copper Exporters, Inc., was such influence as it could have upon the price structure. Don't you think so?

Mr. Kelley. No; not to the extent of raising the price, and I will show at the proper time that Copper Exporters was the only organization that I know of that came out in 1928 and warned buyers against continued purchases because the price would get out of hand, and we assured them of a sufficient supply.

Mr. O'Connell. Assuming it would be legal, do you think there would be anything improper about an organization of businessmen attempting to get as high a price as they could for a commodity?

Mr. Kelley. I think it would be decidedly immoral, except as that high price was related to the cost of their product and to its value to the consumer and was within reasonable limits.

Mr. O'Connell. What kind of a test would you apply?

Mr. Kelley. I would apply a test that took the cost factor into consideration, that took the price, and that resulted in paying a fair return upon the capital invested.

Mr. O'Connell. Now, let me say, I understood you to say yesterday that cost was almost impossible of ascertainment in the copper industry?

Mr. Kelley. No; I didn't say that.

Mr. O'Connell. At least you couldn't tell us what a low cost and high cost producer was. There were so many differences in ways of accounting.

Mr. Kelley. That is a matter of comparison; yes.

Mr. O'Connell. That is a rather difficult factor, apparently, but one that bothers me is the reasonable element of return. What would you say was reasonable return?

Mr. Kelley. That has been a factor of a great deal of discussion in the copper business and elsewhere. The question of cost I would say is that cost which gives that producer whose product is necessary for the industry—in the conduct of the industry—a place. There

are great differences in costs between copper mines due to various factors. Now that mine or that company whose product is required for the economic conduct of the industry is entitled to a place. The cost as decided by the Federal Trade Commission, the Federal Tariff Commission, (when the tariff was under investigation), and the NRA, all come within a very small fraction of difference. It has been held generally by utility companies and companies that are regulated that 6 percent on the invested capital is not an unreasonable return. The profit then for the risk involved in the mining venture should be something more or less than that. As a matter of fact, over any period in recent history the copper industry has never returned 6 percent on the capital invested, and if we take 1937, which was the most prosperous year since 1929, in the entire industry, and if we compute depletion at the rate provided, at the rate used by the Tariff Commission—I am not saying that is the correct rate—in 1937 we get only thirty-two one-hundredths of 1 percent profit. In the period that you are talking about and we are talking about, the period between 1926 and 1938, the industry as a whole showed a deficit, my recollection is, of $25,000,000. The industry was operating at a loss in the years 1920, 1921, and 1922, when this pool was arranged. I told you this morning that during 1921 Anaconda showed a loss of $17,000,000 before depletion. The aggregate loss of the industry in that year was $47,000,000.

Mr. O'Connell. Mr. Kelley, you indicated a moment ago there were quite wide differences in cost.

Mr. Kelley. Right.

Mr. O'Connell. Whose costs are we going to use for the purpose of determining what a fair price is?

Mr. Kelley. I am talking about the average cost of producing copper in the United States.

Mr. O'Connell. That sounds something like I think Mr. Weir said, representing the steel industry. His idea was that all the people in the steel industry, practically, were entitled as almost a matter of right to a reasonable return, which I think he fixed at about 10 percent, but it seems to me a little inconsistent with the system under which we are supposed to be operating. I was under the impression we were supposed to be operating under what is known as a profit and loss sytem under which the less efficient units are constantly being liquidated.

Mr. Kelley. You are perfectly right.

Mr. O'Connell. But you would like to change that to some extent, wouldn't you?

Mr. Kelley. No; let me point this out to you, that the productive capacity of the United States in copper does not exceed 90,000 tons a month, that outside copper is shut off from coming in by a 4-cent tariff or excise tax. There isn't a time when business in the United States regains a normal status that we don't need a minimum of 90,000 tons of copper in the United States, and in 1937, when we got back to a somewhat normal rate of production and consumption, there was an actual deficit of copper in the United States. Now if you shut out these so-called uneconomic units—there will be something said, I imagine, about that later—it is not like a crop that grows. There are so many tons of copper in the United States, there is so much that can be produced, and any time this country gets to

the point of a normal business cycle every ton of copper that we can produce will be required.

Mr. O'CONNELL. That you can produce? Do you mean that this country couldn't produce more than 90,000 tons a month?

Mr. KELLEY. That is absolutely what I mean—the potentialities—because there is no property in the United States that I know of that would justify further capital investment.

The CHAIRMAN. You are not desirous particularly of a high tariff upon copper?

Mr. KELLEY. I?

The CHAIRMAN. Yes.

Mr. KELLEY. I have been absolutely neutral on that.

Senator KING. Isn't it a fact, Mr. Kelley, that in determining costs over several years, you have got to take into account not only obsolescence of machinery, the remarkable technological developments which compel the scrapping of property, which would cost millions of dollars, but you have got to take into account what you call depletion, the exhausting of the ore supply, so that you are eating up your capital every day that you stick a shovel into the ground to remove some of the copper ore. Many of the deposits have been exhausted, thus depleting your capital, and those facts have to be taken into account in determining prices and in determining profit and loss. They should be taken into consideration, and moreover, if I may be permitted to say so, I think the national interest is decidedly involved, and the tables that we have available and that will be submitted, or can be, show that in periods of low prices the metal content of the ores that are beneficiated goes up. What does that mean? It means that the lower the price, in order to get by the necessity exists for selective mining, or picking the eyes out of the mine. You have got to do it in order to get by. When prices go up, costs go up likewise, because then you drop down to your lower grade ores. But a lower price for copper—make no mistake about it—means that this national asset, of which there is already a paucity in this country, is being exhausted without a proper return.

Mr. SCOLL. Have you a chart or table on that point that you can introduce now?

Mr. KELLEY. Yes.

Mr. SCOLL. I think it would be a good point to introduce it to show the effects of selective mining.

Senator KING. Before doing that, on the point of the importance of taking into account the destruction of your capital, Governor Dern of my State developed a gold mine, and he thought and I thought (I visited it many times and had a little stock in it) that it was almost inexhaustible. I don't know how many millions of dollars were expended in the construction of machinery, the building of houses to take care of the people who worked there—nearly 3,000 population were employed or cared for—and in about 6 or 7 years the ore deposit was exhausted, the houses were removed and the people thrown out of employment. Now the whole capital that was invested there was gone. Those things must be taken into account, because the loss in mining operations is tremendous, and it has become quite a proverb that where you get $1 out of a mine you put 50 or 100 in; that is to say, where there is 1 mine that is profitable you get a hundred that

are not. There are hundreds of millions that have been lost in mining operations that didn't pay.

Mr. SHAUGHNESSY. I would like to ask Mr. Kelley if he takes depletion on the Anaconda books.

Mr. KELLEY. For what purpose?

Mr. SHAUGHNESSY. For the purpose of securities sales, reports to stockholders.

Mr. KELLEY. No.

Mr. SHAUGHNESSY. Why not?

Mr. KELLEY. Because it is not the law nor accounting practice in the nonferrous metal business and never has been to show depletion as a charge against income.

Mr. SHAUGHNESSY. I am wondering whether that is consistent with your statements on cost. As I understand it you figured the cost including depletion.

Mr. KELLEY. It is entirely consistent with it, in my opinion, because the question of depletion—may I ask you to define what you mean by depletion on a balance sheet?

Mr. SHAUGHNESSY. I don't profess to be an accountant, but I assume it is the amount based upon the available reserves which in dollars is removed in each year of operation.

Mr. KELLEY. That might or might not, if I may say so, be the case. The question of depletion——

Mr. WOLFF.[1] I might say this. The question of depletion, so far as the deduction is concerned on the books of the corporation, has been covered in various decisions of courts of the United States and it has also been the law for many years in England, that it is not necessary to deduct depletion in determining the income of nonferrous properties, and I believe that the majority of the companies interested or engaged in this industry in the United States have followed that practice consistently and the reports issued to the public show that that practice is followed.

Mr. SHAUGHNESSY. I am not questioning the practice, but I am wondering whether it is what we have heard in respect to use of depletion in determining whether the price on a cost basis is reasonable.

Mr. KELLEY. As a practical proposition, you have an infinite variety of situations. For instance, when all of these mines were purchased by the original owners or locaters, they were bought from the Federal Government. They were on the public domain. The price was two and a half dollars an acre, or $5 an acre. Then these mines were developed. They changed hands repeatedly, and there are very few instances where the actual dollar cost of the mine represents the original investment. Depletion as taken by the Federal Tariff Commission unquestionably was set up upon a basis of all the known reserves against the valuation which occurred on the balance sheets of the companies, but we have another depletion filing that has been the subject of some criticism, and that is the depletion allowed under the revenue law, but that was based upon the appraised valuation on March 1, 1913, irrespective of what was shown on your books, because that was the first time that an income tax law could be constitutionally applied.

Mr. SCOLL. If I may return briefly to the question which I asked before about the fluctuation, your answer was that the fluctuations

[1] Henry J. Wolff, counsel, Anaconda Copper Mining Corporation.

after C. E. I., during the period I specified, were not as great as the fluctuations before. Now your answer, I believe, is based on the fact that the price continued to rise in one direction for that period of C. E. I., but if you look at "Exhibit 2100" you will see that during the whole period of Cooper Exporters, Inc., the price started at 13 cents in 1926 and went up to 24 cents in 1929, and it finished about 5 cents in 1932.

Mr. KELLEY. Right.

Mr. SCOLL. Would that change your answer to my question?

Mr. KELLEY. No; I understood you to confine yourself to '26, '27, '28, and '29; those were the years you mentioned because I marked them down.

Mr. SCOLL. I will change my question to cover the whole period.

Mr. KELLEY. No; after the party started in 1929 and the world went to pieces, everything went down and copper went down with it, probably more than anything else. We wound up with a 5-cent price.

Mr. SCOLL. Before we get into that 5-cent price I would like to introduce at this time a table which shows the sales and average prices received by Copper Exporters, Inc., monthly, 1926 to 1932. This was prepared by the staff of the T. N. E. C. from figures compiled by Mr. Eckert, former manager of Copper Exporters, Inc.

Mr. WOLFF. Before that table of Mr. Scoll's is introduced may we offer in evidence the chart submitted by Mr. Kelley in comparing copper prices with prices of other nonferrous metals?

Mr. KELLEY. The chart that I submitted before was a comparison.

The CHAIRMAN. This is "Exhibit No. 2128." It may be received.

(The chart referred to was marked "Exhibit No. 2128" and is on file with the committee.)

Mr. KELLEY. "Exhibit No. 2128" is a comparison with other nonferrous metals. "Exhibit No. 2127" was a comparison with a commodity index of raw materials as a whole.

Mr. O'CONNELL. May I make a remark on this? This chart seems to me to represent the same type of price behavior—the contrast between the price behavior of copper and the other nonferrous metals. I understood you to say earlier that they behaved somewhat the same during this period.

Mr. KELLEY. There was a general price rise.

Mr. O'CONNELL. That is not very well borne out by the chart. The rise in copper prices was much more precipitous.

Mr. KELLEY. It was very much more, and I explained the reason for it. By that period we had liquidated the enormous stock of copper that had hung over the market. We got to a point where the buying was upon a current basis against current production, and I don't dispute it at all—it was a higher price. The point I made was that it never got as high proportionately as the others.

Mr. O'CONNELL. I see. I was going to see if I couldn't persuade you to give some credit to Copper Exporters, Inc.

Mr. KELLEY. I refer to the fact that in periods of low prices we were obliged to selectively mine, or, as the miner calls it, pick the eyes out of the mine. This chart illustrates the increased yield in copper per ton as the price declined. In other words, you are driven to mine richer ores, and I think the Bureau of Mines bulletins show

that during the period of the depression we mine ore, generally speaking, about 1 percent above the average of all the ore in the United States.

Mr. SCOLL. Do you wish to offer this chart, Index Numbers of the Price of Copper and of Copper Yield Per Ton of Ore Mined?

Mr. KELLEY. I think it is pertinent to the inquiry.

The CHAIRMAN. It may be received.

(The chart referred to was marked "Exhibit No. 2129" and is on file with the committee.)

The CHAIRMAN. What does this chart show with respect to the price of copper during this period?

Mr. KELLEY. That is not a price. It shows that as the price went up the yield per ton went down. As the price went down the yield per ton went up.

Senator KING. That was from picking those parts of the mine where the ore was the richest.

Mr. KELLEY. Correct.

Senator KING. You got out of the lean part of the mine into the richer part.

The CHAIRMAN. For this same period, 1927–29, while the price was going up the yield per ton remained substantially stable?

Mr. KELLEY. Yes; because at that time we were mining everything that we could put our hands on.

The CHAIRMAN. Do you still want to deny credit to Copper Exporters, Inc., for that very satisfactory condition, Mr. Kelley, from your point of view?

Mr. KELLEY. Senator, I will leave the conclusion to you, if I may.

The CHAIRMAN. Well, of course, quite seriously speaking, the situation that you described seems to be this: The Copper Exporters was organized, and after its organization the price went up, but that increase of price was due not to what the new corporation did but to altogether extraneous facts like the exhaustion of the surplus supply. I am at a loss, therefore, to know just exactly what was accomplished by Copper Exporters, Inc.

Mr. KELLEY. It is very hard to measure that afterwards, but Copper Exporters, Inc., was organized at a particularly favorable time. It was organized at a time when the world was in a very big wave of prosperity. It went along with it up to 1929, but Copper Exporters also was functioning when the price of copper dropped to 5 cents a pound.

The CHAIRMAN. Yes; but of course that came at a period which upset all the calculations of everybody.

Mr. KELLEY. Right; we had an upswing and a downswing.

The CHAIRMAN. Now the upswing was coincident with the organization of this corporation.

Mr. KELLEY. We were lucky.

The CHAIRMAN. The downswing came when the depression struck everybody, so we can disregard the latter, can we not, in attempting to assess the effectiveness of this organization. I come back now to the question that I originally asked you and which has not been particularly clearly developed as yet, as to what exactly was accomplished by this new organization which included foreign associates as well as domestic associates in attempting to stabilize the price.

Mr. KELLEY. The results were entirely satisfactory as long as business was good. They became exceedingly disappointing when it got bad. We went a long way up and we came down.

The CHAIRMAN. Then they were satisfactory in this: That until the depression you succeeded, through this organization, in stabilizing world prices on a rising level.

Mr. KELLEY. Yes; and—well, let's leave it that way.

Senator KING. And there would have been a rising level without this organization?

Mr. KELLEY. There might have been. Copper would have risen in price in 1928 and '29 upon the facts of the industry itself.

The CHAIRMAN. Then what good was this organization and why was it brought into existence?

Mr. KELLEY. It was brought into existence because we weren't prophets and we didn't know what was going to happen, and if the thing hadn't happened the way it did it might have been a desirable organization to help us if we got into bad times.

The CHAIRMAN. Of course, a few moments ago you said it had a very desirable effect, and now in response to Senator King you tell us it was practically a useless organization.

Mr. KELLEY. I don't say it was useless. I do say it isn't fair to draw the inference that the rise in the price of copper during a period when every commodity in the world and every security and every security market was rising, was due entirely to Copper Exporters.

The CHAIRMAN. Mr. Kelley, these charts you yourself have presented here indicate in each instance that the increase in the price of copper was out of all proportion to the increase in other commodities.

Mr. KELLEY. That is an interpretation. It shows that the price of copper never reached the pre-war level that other commodities did. I agree that the rise at that particular time was more rapid because all stocks had been exhausted; the production charts and the consumption charts and the increase in production and consumption verify it.

Senator KING. It was subject to a more precipitous rise than other commodities because of the fact that all the other stocks had been exhausted and there was a great demand by reason of the technological development in various industries which were short of copper.

The CHAIRMAN. Mr. Kelley, let me hand you your "Exhibit No. 2128," and ask you to refer on that exhibit to the three lines which you have drawn there for the years '27, '28, and '29, and compare the increase in the price of copper as shown on that chart with the increase in the price of pig iron.

Mr. KELLEY. In that particular time the price of copper went on the index from a subnormal level of 82, I should say, to 120.

The CHAIRMAN. From 82 to 120?

Mr. KELLEY. That is right.

The CHAIRMAN. That is a difference of how many points?

Mr. KELLEY. It is a difference of 38 points. Pig iron, which was already at a level of 120, which was never reached by copper, went up to 128.

The CHAIRMAN. What was that increase?

Mr. KELLEY. Eight points

The CHAIRMAN. And while copper was going up 38 points, pig iron went up 8?

Mr. KELLEY. Yes.

The CHAIRMAN. What does the other line show?

Mr. KELLEY. The other line is Bessemer steel. Bessemer steel in that period went from 129 to 135.

The CHAIRMAN. And how many points is that?

Mr. KELLEY. About six points.

The CHAIRMAN. So that while copper was going up 38 points, Bessemer steel went up 6 points?

Mr. KELLEY. Yes.

The CHAIRMAN. And now do you still want to deny any credit to Copper Exporters, Inc., for the very splendid showing of the copper price?

Mr. KELLEY. Senator, I want to try to make myself clear and to do it frankly. Copper started from a subnormal level. It increased more precipitiously, I have frankly said; the reason it was at a subnormal level was because of the stock situation that up to that time had hung over the market, in my opinion.

Senator KING. There was no evidence that pig iron had to start from the cellar, normal level.

Mr. KELLEY. There is never, as far as my information goes, a surplus of pig iron. I mean they don't melt up the ore until they require the iron. May I just suggest this: If we look at zinc in the same period, and lead, they likewise show more rapid increases than the general commodity index.

The CHAIRMAN. Zinc and lead were more like copper in their operation.

Mr. KELLEY. Yes.

Mr. O'CONNELL. Do you happen to know whether there was an international agreement, international cartel, in connection with those commodities?

Mr. KELLEY. I don't. I think I am safe in saying there was no international cartel in zinc, because we are handling zinc; we are not consequential factors in lead, and I don't know anything about it.

The CHAIRMAN. Proceed, Mr. Scoll.

Mr. SCOLL. I now offer this table referred to before, entitled "Sales and Average Prices Received by Copper Exporters, Inc., Monthly, 1926–32."

The CHAIRMAN. It may be received.

(The chart referred to was marked "Exhibit No. 2130" and is included in the appendix on p. 13454.)

Mr. KELLEY. May I ask Mr. Scoll a question? I want to ask Mr. Scoll if he intended to interrogate me with reference to the stock situation, the production, and the consumption during the period that we have been discussing.

Mr. SCOLL. That is what I was getting to right now.

Mr. KELLEY. I would like to have these introduced [1] as a verification of the testimony I have given with reference to "Exhibit No. 2127."

The CHAIRMAN. At the proper time that may be done.

[1] Referring to "Exhibits Nos. 2131, 2131-A, 2131-B and 2131-C."

1929 INCREASE IN PRICE OF COPPER

Mr. SCOLL. I will ask you now, Mr. Kelley, if you will explain the rise in the price of copper from an average of 15.2 cents in October 1928, to an average of 21.2 cents in March 1929. You have some charts there. You may read from them and I will give the chairman copies.

Mr. KELLEY. I will try to summarize——

Mr. SCOLL. Mr. Kelley, first will you explain the long column which is marked in yellow, and brown (representing, respectively, refined and unrefined stocks).

The CHAIRMAN. Let's get this chart identified. This will be "Exhibit No. 2131"; it is entitled "Copper Statistics, Record by Months of World Stocks, Production and Consumption, 1928–1931". By whom was this prepared Mr. Kelley?

Mr. KELLEY. These charts were prepared by our organization from figures of the American Bureau of Metal Statistics, and were currently kept in my office for my personal guidance in trying to handle the business.

The CHAIRMAN. The charts may be received. Now you may proceed in your explanation.

(The charts referred to were marked "Exhibits Nos. 2131, 2131–A, 2131–B and 2131–C" and are included in the appendix facing p. 13455.)

Mr. KELLEY. What chart have you before you, 1928?

Mr. SCOLL. The record should show I believe that there are four pages to this chart.

Mr. KELLEY. 1928, 1929, 1930, and 1931 up to October when statistics ceased.

The CHAIRMAN. There are four exhibits to be entered as Nos. 2131–A, B, C and D.

Mr. KELLEY. These charts, which as I say were kept currently, show, first, the large column to the left among the three columns shows the producers' stock on the first of the month as reported by the same authority. The red column to the right shows the actual deliveries made by the industry during that month. Now, you will observe ——

Mr. SCOLL (interposing). Before you explain that, Mr. Kelley, the green column in the middle, which is labeled "Production during the month"—that production includes what?

Mr. KELLEY. It includes all the production of primary copper reported through the American Bureau of Metal Statistics.

Mr. SCOLL. So it would include both blister copper and refined copper. Is that correct?

Mr. KELLEY. As I understand this chart, it is on the smelter basis, it would include one or the other as it came through.

Mr. SCOLL. Can you answer my question as to whether it includes refined copper as well as blister copper.[1]

Mr. KELLEY. I think it does.[1]

If you will observe, at the beginning of the year 1928, there was a total stock of copper of about 700,000,000 pounds. Production was running currently a little short of 300,000,000 pounds a month, and consumption was running a little in excess of 300,000,000 pounds a month. Now, following through January, February, March, April,

[1] The production was on a blister basis to eliminate duplication.

and May, in each of those months, the deliveries of copper exceeded the production. The result was a constant diminution in the amounts of copper shown in the stock column. So that by June the stock had gotten down to 600,000,000 pounds. On the contrary, production had gotten up to 318,000,000 pounds, just balancing deliveries. The situation was in balance.

Following that in July, production exceeded deliveries a little bit. From that time on, notwithstanding the constant increase in production up until December—no really up until November—the deliveries exceeded the production, resulting in a diminution of stock. In October, the stock position had gotten down to 600,000,000.

The CHAIRMAN. In October of 1928?

Mr. KELLEY. 1928, and that was the time that we became very much concerned about the situation.

The CHAIRMAN. When the stocks on hand were reduced to 612,000,000?

Mr. KELLEY. Yes.

The CHAIRMAN. Then you became concerned?

Mr. KELLEY. About a run-away price. That is the time the price began to get out of anybody's control. To meet that situation, on October 29, 1928, Copper Exporters issued a statement in which we advised the buyers to cease buying. It had almost assumed panic proportions, and we said:

> The urgent demand for copper has forced the Copper Exporters Inc. to raise the price of copper for export to 16¼ cents c. i. f. European ports. In the opinion of the producers and refiners forming the membership of Copper Exporters Inc., consumers are buying in excess of actual requirements, thereby creating the danger of a run-away market. They believe that the increased mine production—September, 7,000 tons over August, and 20,000 tons over January—will be sufficient to satisfy any reasonable demand. Unfilled orders on the books of producers and refiners as shown by available statistics were 353,000 tons at the end of September as compared with 257,000 tons at the end of August, and have undoubtedly been further increased during the month. It is believed that if buyers will confine their purchases to actual requirements, the situation should be relieved by increased mine production coming upon the market.

That was the best advice that we could give to prevent a run-away market.

The CHAIRMAN. What was the price in January 1928, at the beginning of this chart?

Mr. SCOLL. I think I can answer that from the table attached to "Exhibit No. 2100." [1]

Mr. KELLEY. The average price of copper in January 1938 was 13.85 cents a pound.

The CHAIRMAN. In February what was it?

Mr. KELLEY. In February it was slightly lower, 13.82.

The CHAIRMAN. March?

Mr. KELLEY. 13.84.

The CHAIRMAN. April?

Mr. KELLEY. 13.98.

The CHAIRMAN. May?

Mr. KELLEY. 14.2.

The CHAIRMAN. June?

Mr. KELLEY. 14.5.

The CHAIRMAN. July?

Mr. KELLEY. Exactly the same.

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[1] Appendix, p. 13394.

The CHAIRMAN. August?

Mr. KELLEY. The same, 14.2.

The CHAIRMAN. September?

Mr. KELLEY. 14.7.

The CHAIRMAN. October?

Mr. KELLEY. October, 15.2.

The CHAIRMAN. So that it was this increase in October that caused you to fear a run-away market.

Mr. KELLEY. It was the decrease in stocks that continued over deliveries as against production and the volume of buying that was coming in which was in excess, we believed, of normal requirements.

The CHAIRMAN. According to this chart, the stocks on hand in October were 612,000,000 as compared with 699,000,000 in January, or a decrease of only 87,000,000 pounds.

Mr. KELLEY. Yes; but look at the decrease in the refined stock, and that is the stock that was available for delivery. That is the lighter color at the top.

Mr. SCOLL. May I interrupt there, Mr. Kelley? A part of the production represented in the green column was also available, was it not, insofar as they were refined stocks?

Mr. KELLEY. No; whatever was delivered is reflected in this other column.

Mr. SCOLL. But the deliveries came out of all stocks that were available and they might have been refined during that month or previously, and if previously refined, were on hand the first of the month.

Mr. KELLEY. Yes.

The CHAIRMAN. Of course, that is clear because taking the first column of January, the deliveries amounted to 307,000,000 pounds, plus, and the refined stock on hand that month was only 229,000,000 pounds.

Mr. KELLEY. Yes.

The CHAIRMAN. The 307,000,000 pounds delivered had to be taken both from the refined stocks on hand, and the copper produced during that month.

Mr. KELLEY. Yes; that is right. The tall column (stocks) represents the net result after the reduction of delivery figures had been calculated, but if you look at the refined stock position, that had decreased from 229,000,000 pounds to 134,000,000.

The CHAIRMAN. But the amount produced had increased from 287,000,000 pounds to 353,000,000 pounds.

Mr. KELLEY. Right; and the deliveries had increased from 307,000,000 to 355,000,000, so there was scarcely 2 weeks of refined copper in the world. That is what we were afraid of. It takes approximately 90 days to bring it through.

Senator KING. It is evident you were not seeking to increase the price of copper to the consumer.

Mr. KELLEY. Not at that time.

Senator KING. You were seeking to prevent a run-away market which would cause an unprecedented and undesirable price in copper?

Mr. KELLEY. That is right.

Now, if I may continue, briefly, that situation reached, I think, its apex in March. Production was increasing, deliveries were increasing—that was the world condition that I referred to, and stocks were

not being built up adequately. The producers in that situation sold forward copper that was in the ground as far as they dared; the market was left to the custom smelters, which necessarily couldn't go in a forward position with the small producers, and that is what forced the price up on bids, not "asks," to 24 cents a pound.

Mr. SCOLL. Mr. Kelley, were any of the copper producers to your knowledge speculating in copper during that period?

Mr. KELLEY. No; not to my knowledge. What do you mean?

Mr. SCOLL. I mean speculating on further advances in price and accumulating stocks with the idea of unloading them at a higher figure.

Mr. KELLEY. No.

Mr. SCOLL. I think, Senator, we may proceed. Have you anything more to say?

Mr. KELLEY. This whole situation was covered completely in a memorandum that was prepared for the Board of Review of the Federal Trade Commission under date of October 21, 1931, as was the subsequent 1930 situation, and sometime I think it might be advantageous——

Mr. SCOLL (interposing). I suggest that you offer it to the committee.

The CHAIRMAN. It may be received, Mr. Kelley. You would like to have it appear in the record?

Mr. KELLEY. I think it is the most succinct statement of what occurred through that entire cycle that has been prepared anywhere.

Mr. SCOLL. It bears "Exhibit No. 2132."

(The memorandum referred to was marked "Exhibit No. 2132" and is included in the appendix on p. 13456.)

Mr. SCOLL. You referred to the statement that was issued by Copper Exporters, I believe it was in October 1928. Now, subsequent to October 1928, the price kept on rising?

Mr. KELLEY. Right.

Mr. SCOLL. And that rise in price naturally stimulated, or did it stimulate buying?

Mr. KELLEY. That is a good deal like whether the chicken followed the egg or the egg the chicken. They always go together. You get a situation of the rise in prices, you get panicky buying, you get an increase in price, and you get a situation——

Senator KING (interposing). Stimulated speculation, too.

Mr. KELLEY. Right.

Mr. SCOLL. Copper Exporters controlled roughly 95 percent of the United States production and 86 percent of the foreign production at that time?

Mr. KELLEY. The members sold the copper. I don't want to be technical.

Mr. SCOLL. The members acting through the Copper Exporters, Inc., could they have kept the price down?

Mr. KELLEY. No. Mr. Brownell, who assisted in the preparation of this statement, is here, and he will testify that we were so concerned about the situation we did everything we could, and we contemplated coming over and putting the situation up to the Department of Justice, or to somebody, and asking permission to allocate copper because we knew copper was being bought speculatively. We knew we were in a run-away market, and we were helpless to stop it. We had sold a billion pounds of copper ahead a little later against a total stock above

ground of 600,000,000 pounds. We had sold copper, several hundred million pounds of it, that was still in the mines. That is the best we could do.

CONFERENCES WITH GOVERNMENT OFFICIALS CONCERNING PRICE OF COPPER

Mr. SCOLL. I believe that the price of copper was stablilized at 18 cents about May 1929. Isn't that correct?

Mr. KELLEY. Well, the price of copper was 18 cents.

Mr. SCOLL. Was 18 cents?

Mr. KELLEY. About.

Mr. SCOLL. And thereafter it was held at 18 cents, according to the record?

Mr. KELLEY. That price prevailed.

Mr. SCOLL. What persons were instrumental in holding the price at 18 cents?

Will the reporter read that question?

(The question was read by the reporter.)

Mr. SCOLL. What class of persons, rather than individuals?

Mr. KELLEY. Well, I should say that that was the price of copper that prevailed in the industry.

Mr. SCOLL. Well, now, I believe you referred to the fact that you had some consultation with Federal officials some time after March 1 and before August 1929, with respect to methods and ways and means of checking the run-away market. Is that correct?

Mr. KELLEY. No. No; I said we considered it. We did not come down.

Mr. SCOLL. Well, now, did the amount of inventories of refined copper that were bought above 18 cents—and that was before May 1929—and held by the fabricating companies including the fabricating subsidiaries of the producers, have any influence in the decision to maintain the price at 18 cents?

Mr. KELLEY. Well, I don't want to quibble, but I must object to the term "decision to hold the price at 18 cents," because until after the panic there was no such decision.

Mr. SCOLL. Let me change the question slightly and change the word "decision" to efforts to maintain the price?

Mr. KELLEY. Well, let me tell you what happened, may I? This tremendous buying wave that started in the fall of 1928 continued through the balance of the year, and in January my chart shows in the first week we sold 76,900 tons of copper. The sales in the second and third week were not so great, but to summarize it, as you can see—have you a copy of this? [1]

Mr. SCOLL. No, but that is all right. I have seen it and I think I can follow your discussion.

Mr. KELLEY. Here it is. The sales by April—forward sales—amounted to more than 1,000,000,000 pounds of copper; and if you will look at the other chart for 1929 you will see that in April, for the first time, production exceeded deliveries. The price naturally was due for a break; there was very little copper sold above 20 cents. The average price of all the sales that were on the books was about 18 cents. The price receded to 18 cents. The producers had been

[1] Referring to "Exhibit No. 2131," appendix, facing p. 13455.

sold out, as I have explained, months in advance. The custom smelters and the small producers took the market. We were digging the copper that was necessary to deliver, and while it may not be important, my expectation was the situation would be completely liquidated; but if you will look on the chart you will see what happened in July and August.

As I recall, in the first week of September 142,000 tons of copper were sold, and we were again in a tremendous forward position, which if permitted to collapse would unquestionably have precipitated the panic that came later, and that situation we did not—the producers did not want—there was no agreement about it. As a matter of business policy, having been sold out we did not force our copper on the market; we were endeavoring to see that the situation was liquidated and that is what happened up to the time of the panic, which occurred in October 1929.

Mr. Scoll. And I believe you made reference to the fact that you were forced into the position of holding the umbrella over some of the others that were selling at that time, some of the custom smelters and small producers?

Mr. Kelley. Well, that applied more particularly during the period of Copper Export Association. All right, we were.

Mr. Scoll. Now, in order to maintain the price at 18 cents through the panic, did any of the producers make stabilizing purchases of copper?

Mr. Kelley. That I do not know.

Mr. Scoll. Now, following the panic of 1929, will you describe the conferences that took place in Washington, telling who took the initiative and who participated?

Senator King. While you are getting that, may I make an off-the-record statement? (Statement off the record.)

Mr. Scoll. Before you answer my last question, Mr. Kelley, I asked you whether any of the producers had made stabilizing purcases in the late summer of 1929 and through the panic, in order to hold the price, and you said you didn't know of any. Now, how was the price maintained at 18 cents during that period?

Mr. Kelley. Well, if you will look at the chart that has been introduced in evidence [1] you will see that business was going through the summer of 1929 at full tilt. You will see that production was practically maintained and deliveries were more than taking care of production as late as October 1929. Look at the picture. In September our production was 348,000,000 pounds.

Mr. Scoll. Let the record show that Mr. Kelley is referring to "Exhibit No. 2131."

Mr. Kelley. Our deliveries were 346,000,000; we were within 2,000,000 pounds of a complete balance. In October our production was 350,000,000; our deliveries were 364,000,000. Now during that situation, and with that picture in front of you, no one, I take it, would go out and deliberately cut price; there would be no necessity for doing it. We were delivering the copper that we had sold during the spring and that situation continued until November, when the panic occurred, and then look what happened. Our production kept up to 341,000,000 and our deliveries dropped to 260,000,000, a drop of over 80,000,000 pounds in the month of November.

[1] "Exhibit No. 2131."

That is when the situation was collapsing.

Mr. Scoll. But I believe the conferences in Washington did not take place until sometime later?

Mr. Kelley. That is right.

Mr. Scoll. Then how was the price maintained from the time October until it was decided in conference with Federal officials to hold the price?

Mr. Kelley. Well, how much of that?

Mr. Scoll. It covers a couple of months.

Mr. Kelley. The situation, and I will try to describe it very briefly, was as you described it, Senator King (in off-the-record statement). There was a state of panic. Everybody was trying to hold—this was after October, during the months of November, December, and January. The stock market had collapsed, and we all felt that it was a temporary thing, that with the close of the year there would be a resumption where we left off.

The President of the United States had called a meeting of executives, representing various lines of business. Mr. Brownell was there; and out of that came the appointment of a committee of business survey, I think it was designated, 20 men who represented the different industries in the United States, including myself.

We had numerous conferences here as to what could be done. It was generally thought that the best program to be adopted was to try to maintain prices through a difficult period in order to prevent a collapse in the business structure which would result in tremendous unemployment, and up to that time we had not come into the cycle of unemployment, you see.

That was the situation in January and it was the situation in March. In the latter part of March I became concerned over the situation. I felt that we were holding copper at a fictitious price. I felt that it couldn't survive. The panic—the depression had started and we were going into a deeper and wider depression than we had visualized. I came to Washington—Mr. Brownell and I came to Washington; we consulted with responsible governmental officers who urged us to hold the price. We felt that it was our duty to cooperate. We did. That was a period of fictitious price, of artificial price, if you please. I enjoyed the general responsibility for it, and got the criticism that went for doing it, but it was my deliberate judgment the price should have been cut before it was, and it wasn't only because we felt it was our duty to cooperate with the Government in maintaining it that we did so.

That situation prevailed until the month of April 1930 when we advised the Government that it was impossible to continue any longer, and even then against the request of the Government, through responsible agencies, we let the price go.

Mr. Scoll. Well, now through this period that we have just been discussing, Mr. Kelley, late '29 and early '30, the custom smelters were, I believe, in a rather critical position in that they had to unload their daily intake as it came in, isn't that correct?

Mr. Kelley. That is correct.

Mr. Scoll. And so that in order to carry out the wishes of the Federal officials that you spoke to and try to hold the situation in check, some arrangements had to be made with the custom smelters

so that they wouldn't lose out and be forced to cut the price—isn't that correct?

Mr. KELLEY. No; it is not correct to this extent: I don't want to place any responsibility prior to the panic upon anything that was suggested by Government officials, and the arrangement was initiated prior to that time.

Mr. SCOLL. It was initiated prior to that time? Well, will you describe the arrangement briefly?

Mr. KELLEY. Well, don't you think Mr. Brownell had better do that?

Mr. SCOLL. Very well.

Mr. KELLEY. It is his particular business.

Mr. SCOLL. One further question on Copper Exporters, Inc. After the break of the 18-cent price and the price started down the toboggan, the Copper Exporters, Inc., tried to hold the custom smelters with special quotations under the official price, did they not? Will the reporter read that question?

(The question was read by the reporter.)

Mr. SCOLL. I am referring to the allowance of the special participations, preferred participations.

Mr. KELLEY. My recollection is that after the break of the 18-cent price the party was over, but that during the continuance of the 18-cent price the producers waived sales and allowed a transfer of participation.

Mr. SCOLL. Were any concessions made to the European Associates to hold them in line?

Mr. KELLEY. Not that I recall.

Mr. SCOLL. Does the phrase "the extra-special quotations" recall anything to your mind?

Mr. KELLEY. It really doesn't.

COPPER INSTITUTE AND STATISTICS

Mr. SCOLL. I would like to ask you a few questions about the Copper Institute.

Mr. KELLEY. Yes.

Mr. SCOLL. Shall we proceed?

The CHAIRMAN. Let's proceed.

Mr. SCOLL. You, I believe, are the president of the Copper Institute.

Mr. KELLEY. I am.

Mr. SCOLL. What is the function of the Copper Institute?

Mr. KELLEY. The Copper Institute is purely a statistical organization, functioning in the gathering and distribution of pertinent statistics with reference to the production, consumption, and distribution of copper.

Mr. SCOLL. I would like to offer at this time a list entitled "Organization of Copper Institute," which includes the membership of the Institute, its officers, and executive committee, of which Mr. Kelley is the chairman. This list was prepared by the Copper Institute.

The CHAIRMAN. It may be received.

(The list referred to was marked "Exhibit No. 2133" and is included in the appendix on p. 13460.)

Mr. SCOLL. This list must have been the officers and personnel at the time of organization of the Institute.

The CHAIRMAN. In what year was that?

Mr. SCOLL. 1926, I believe.

Mr. KELLEY. 1926 I think is right.

The CHAIRMAN. And it has been changed since then?

Mr. WOLFF. In 1927.

Mr. KELLEY. Yes.

Mr. SCOLL. I would like to read into the record article 4 of the constitution of the Copper Institute dated as of November 3, 1927:

> Article 4. The books and records of the Institute shall be open at all times to the inspection of the departments or bureaus of government interested and all reports distributed to members shall be furnished to any official public body or institution desiring to receive them. The information compiled by the Institute, in essential particulars, shall be available to the public through trade journals or the general press.

Has the institute made its information readily available to the trade journals or to the press?

Mr. KELLEY. Generally speaking, it is my understanding that it has. I believe there are some particular matters that people who furnish them prefer not to be published, but on the whole I would say that whether or not they have all been given to the press, they have all been filed with the governmental bodies.

Mr. SCOLL. What has been the general attitude of leading members of the Institute toward publication of statistics?

Mr. KELLEY. Well, I think generally they have all been in favor of it.

Mr. SCOLL. But the Institute has from time to time suspended the publication of statistics, has it not?

Mr. KELLEY. Only in exceptional cases and under exceptional circumstances. Do you refer to what occurred just recently?

Mr. SCOLL. I didn't want you to go into it, merely to answer whether or not such suspensions had occurred.

Mr. KELLEY. Generally speaking, when the information has been available it has been published.

Mr. SCOLL. You are aware, of course, that the American Petroleum Institute and other trade associations——

Mr. KELLEY (interposing). I know they exist.

Mr. SCOLL. Have over a period of time made their statistics public. Has the attitude of the Institute on this matter of statistics been conditioned by the attitude that keeping control over the use of its figures discourages the activities of the speculator?

Mr. KELLEY. Well, I don't think it has kept control.

Mr. SCOLL. Well, those periods when statistics have been suspended—does that have some relation to the activities of speculators?

Mr. KELLEY. That I couldn't say. I know what Mr. Scoll wants.

Mr. SCOLL. Why don't you tell me?

Mr. KELLEY. Frankly, the situation is that when the war came, I mean our current war, statistics were unavailable from Germany, they were unavailable from the Empire producers, which included the Canadians and the South Africans, because their production had been taken over by the British Government, and at that time it seemed as though that was something that the British Government quite naturally might not wish to be made public, and in that situation, from September on until the end of the year, no statistics were published because they were incomplete. Now what further purpose any

individual or corporation might have had for taking the position that they didn't want the statistics compiled, I am not in a position to discuss. The fact is that general, complete statistics were not compiled.

Mr. SCOLL. I believe the Institute recently announced that it was going to resume publication of statistics. Is that a fact?

Mr. KELLEY. We have been urging our foreign associates to try and get the statistics released. They were not compiled during this period. It was my understanding that they will be forthcoming and we hope that while we may not be able to publish the statistics monthly, we will cover the period from September to the end of the year in a block, so that the yearly statistics will be complete.

Mr. SCOLL. It helps the consumers of copper more if the statistics are published than if they are not, doesn't it?

Mr. KELLEY. Surely.

Mr. O'CONNELL. May I ask a question there? Before you suspended the publication of statistics, did you prepare and publish statistics on such specific questions as domestic production and domestic consumption, or were the statistics purely on a world basis?

Mr. KELLEY. It was both. We published domestic and the world—domestic, foreign, and combined statistics.

Mr. O'CONNELL. At the time you suspended publication, you indicated that your statistics were incomplete?

Mr. KELLEY. The world statistics.

Mr. O'CONNELL. You did have the same type of figures as far as domestic production and consumption were concerned, did you not?

Mr. KELLEY. No, we didn't, because some of the members—some of the producers—took the position that if they couldn't get complete information they wouldn't furnish theirs; and we did not have them—I mean speaking for the Institute.

Mr. SCOLL. To your knowledge, were any of the domestic statistics made available to any large consumers of copper who were on the inside, so to speak?

Mr. KELLEY. Not that I know of.

INTERNATIONAL SHIFTS IN COPPER PRODUCTION

Mr. SCOLL. At this time I would like to offer for the record a chart and two tables entitled "World Production of Copper, 1912–1938," a chart that was prepared by the T. N. E. C. from figures of the American Bureau of Metal Statistics. It shows the relative positions from 1912 to 1938 of Asia, Europe, Africa, Latin America, and Canada, Newfoundland, and the United States. Copies have been furnished to you, I believe.

The CHAIRMAN. They may be received.

(The chart referred to was marked "Exhibit No. 2134" and appears on p. 13462. The statistical data on which this chart is based are included in the appendix on pp. 13460 and 13461.)

The CHAIRMAN. The spaces on this chart are not cumulative, are they, Mr. Scoll? In other words, the space labeled "United States" indicates the production of copper in the United States. Then the space above that, which is labeled "Canada and Newfoundland," represents the production in Canada and Newfoundland but does not include the space below already in the United States?

Mr. SCOLL. That is correct.

The CHAIRMAN. So that in interpreting this chart we must take into consideration only that area which is designated for each different country.

Mr. SCOLL. That is correct.

Mr. KELLEY. Pardon me, Mr. Scoll, do you mean that? It is cumulative in the sense that, for instance, Canada and Newfoundland are added onto the total production of the United States, so that you get a cumulative figure going up to two and a half million short tons of copper. Isn't that right?

The CHAIRMAN. I think you misunderstood me, Mr. Kelley. My thought was this: I wanted to be clear that the production of Canada and Newfoundland does not amount to more than the production in the United States. It is the difference above each one. Proceed, Mr. Scoll.

Mr. SCOLL. Beginning with 1930, an increasing share of world production went to Africa and Canada. Isn't that correct?

Mr. KELLEY. That is right.

Mr. SCOLL. I would like to offer at this time a chart and supporting table showing the share of world production of copper controlled by United States companies, 1915–1937.

The CHAIRMAN. What is the source of this?

Mr. SCOLL. This was prepared by the T. N. E. C. staff from figures of the American Bureau of Metal Statistics. It shows very graphically how the foreign share of world production has increased since 1930 and how the United States share has decreased.

The CHAIRMAN. The exhibit may be received.

(The chart referred to was marked "Exhibit No. 2135" and appears on p. 13464. The statistical data on which this chart is based are included in the appendix on p. 13463.)

Mr. SCOLL. Mr. Kelley, in spite of the decline in total world production by the United States, the amount of world production controlled by the United States companies which was produced outside of the United States increased considerably, did it not?

Mr. KELLEY. That is true.

Mr. SCOLL. And it was greater than it had ever been before?

Mr. KELLEY. Right. This chart (referring to "Exhibit No. 2136") shows the geographic distribution of the ore reserves of the world by countries; this chart (referring to "Exhibit No. 2137") shows the distribution of reserves by corporate control by nationality.

The CHAIRMAN. Please number them and we will get them in the record.

Mr. SCOLL. The two charts referred to, World Copper Reserves by Geographic Location, and World Copper Reserves by Corporate Control, introduced by Mr. Kelley, will bear the numbers 2136 and 2137.

The CHAIRMAN. The exhibits may be received.

(The charts referred to were marked "Exhibits Nos. 2136 and 2137" and are included in the appendix on pp. 13465 and 13466.)

Mr. KELLEY. The corporate control referred to is by nationality and not individually by companies.

The CHAIRMAN. Let's see what you mean by that.

Mr. KELLEY. American.

The CHAIRMAN. American?

Mr. KELLEY. American created corporations. If you look at the bottom of that chart,[1] that refers to the nationality of the corporations.

The CHAIRMAN. You have (a) United States, and under that, Canada 0.19 percent, Mexico 0.29 percent, Cuba and Nicaragua 0.09 percent, and Cyprus 0.43 percent. Is that right?

Mr. KELLEY. Yes; that is right.

The CHAIRMAN. Does that mean that United States corporations are operating in these five areas?

Mr. KELLEY. No; that is forty-three one hundredths of 1 percent in those particular places.

The CHAIRMAN. Oh, I see. That (a) refers to that segment of the big circle which is labeled (a).

Mr. KELLEY. Yes; United States corporations in there.

The CHAIRMAN. In that segment the United States corporations operate. That represents 1 percent of the entire world reserves. Is that it?

Mr. KELLEY. Yes; that is the miscellaneous production that was too small to allocate to different countries—ore reserves, not production.

The CHAIRMAN. I see. It still isn't clear to me. Let's go to the circle itself. Here it is divided into various segments which are labeled "United States Domestic," "U. S.-Chile," "Canadian," "British-Africa," "Belgian," "Russian," with three segments which are not labeled. One is indicated by the letter (a) and one by the letter (b) and one by the letter (c). Let us take the United States Domestic segment, which is apparently 23.62 percent of the total circle. What does the chart represent with respect to that segment?

Mr. KELLEY. That section, 23.62 percent, represents the amount of the ore reserves of the world within the United States and controlled by United States corporations.

The CHAIRMAN. All right. Now the next segment above that is Chile; 24.56 percent of the copper reserves of the world are in Chile and controlled by United States corporations?

Mr. KELLEY. Right.

The CHAIRMAN. Now, then, with respect to segment (a), that means that United States corporations control the various amounts set forth below in these various countries. Is that correct?

Mr. KELLEY. That is right.

The CHAIRMAN. Why does Canada appear both in segment (a) and have a segment all to itself?

Mr. KELLEY. It is because there is a small American ownership in Canadian ore reserves. The balance of it is owned by Canadian corporations.

The CHAIRMAN. Then isn't this 7.68 percent labeled Canadian owned by United States corporations?

Mr. KELLEY. I don't see where that is.

The CHAIRMAN. Can you give me from this chart the total amount of copper reserves of the world owned or controlled by corporations of the United States?

Mr. KELLEY. Yes. According to the tabulation which we have prepared, we have 56,000,000 tons, or 49 percent of the ore reserves of the world are controlled by American companies.

[1] "Exhibit No. 2137" appendix, p. 13466.

Mr. PIKE. That is in tons of copper, not ore?
Mr. KELLEY. Yes; copper.
The CHAIRMAN. The United States corporations have no part in this Russian percentage of 15.46 percent?
Mr. KELLEY. I think not.
The CHAIRMAN. Nor in the Belgian percentage of 5.25?
Mr. KELLEY. No.
The CHAIRMAN. Nor in the British-Africa 17.86?
Mr. KELLEY. No.
The CHAIRMAN. Not in the Canadian of 7.68?
Mr. KELLEY. Some may own stock in them.
The CHAIRMAN. Is there any other world organization which operates in the copper industry besides the Copper Exporters of which we were speaking a little while ago?
Mr. KELLEY. That is not operating now.
The CHAIRMAN. No; but is there any other that has been operating?
Mr. KELLEY. Not that I know of.
The CHAIRMAN. That was the only international organization of which you know?
Mr. KELLEY. Except the Institute, which is merely a statistical organization.
The CHAIRMAN. None other?
Mr. KELLEY. None other.
The CHAIRMAN. And so far as you know there has been no other association of foreign producers with American producers except——
Mr. KELLEY (interposing). Oh, yes; there is a group of copper producers operating outside the United States that entered into a production agreement, but I think it is intended that Mr. Stannard shall handle that.
The CHAIRMAN. That did not include any United States corporations?
Mr. KELLEY. It included United States corporations but not United States production.
The CHAIRMAN. United States corporations operating in——
Mr. KELLEY (interposing). Operating abroad.
The CHAIRMAN. Do I understand that American corporations do not produce copper in Europe?
Mr. KELLEY. I know of no American corporation that produces copper in Europe.
The CHAIRMAN. Nor in Asia?
Mr. KELLEY. Nor in Asia.
The CHAIRMAN. American corporations are confined, then, to North and South America in their development?
Mr. KELLEY. I think that is true. They may have a small interest—my assistant tells me there is one American corporation that is operating on the Isle of Cyprus.
The CHAIRMAN. That is a very insignificant amount?
Mr. KELLEY. It is a small operation, comparatively.
Mr. SCOLL. The new foreign producers, or should I say the foreign producers which began to develop production during this period, were Rhokana, International Nickel of Canada, Roan Antelope and Mufulira, were they not?
Mr. KELLEY. Those were the most important ones who increased their production during that period.

Mr. Scoll. And Rhokana, Roan Antelope, and Mufulira have been referred to as the low-cost producers?

Mr. Kelley. I never heard them so referred to.

Mr. Scoll. Are they?

Mr. Kelley. They are Rhodesians. Their costs are published. It depends a great deal upon what currency you use as a denominator. If you translate it into cents, it is one thing; if you keep it in shillings, it is another thing.

The Chairman. Now, money is just a measure of value.

Mr. Kelley. But it makes a great deal of difference if your rate of exchange is $4.86 or if it is down to $3.50. I mean they are economic producers; they pay their bills in sterling. Their costs are kept in sterling, but the cost to them, if you translate it into cents per pound, varies with the rate of exchange.

The Chairman. What is the real difficulty of coming to an understanding as to what is a low-cost producer or a high-cost producer?

Mr. Kelley. I think the best answer to that would be if I could have access to one of these Government reports. They classify copper costs say below 8 cents, bracket it between 8 and 10 cents, bracket it between 10 and 12 cents, 12 and 14 cents, 14 and 16 cents. Now, low and high are comparative terms. It depends on where you draw the line.

Mr. Scoll. Which ones are below 8 cents, Mr. Kelley, if you can recall?

Mr. Kelley. Well, in this report of the Federal Trade Commission—I want to be very frank about it, I am not trying to evade.

Mr. Scoll. What is the date of that?

Mr. Kelley. This is the report of the Federal Trade Commission in 1919 and gives the cost in 1918.

Mr. Scoll. That wouldn't give us much information on these Rhodesian producers would it?

Mr. Kelley. No. You asked if they were high or low cost. I will say they are competitive producers but there is plenty of copper that is cheaper and a great deal that is higher.

The Chairman. Of course it is common knowledge in mining regions that ore varies in content, that you have high-grade ore and low-grade ore, that ordinarily the high-grade ore may be produced at a low cost, and the low-grade ore is produced at a higher cost. That is true, is it not?

Mr. Kelley. No, sir.

The Chairman. It is not? What is the fact?

Mr. Kelley. The fact is that the cheapest copper in the world is produced from the lower grade ores where the character of the operation is such that it lends itself to great volume and mechanization. Those factors more than overcome a much higher grade ore that has to be mined from a depth, transported underground and hoisted to the surface. Generally speaking, Senator, the lowest-cost copper is being produced from the lowest-grade ore.

The Chairman. By reason of mechanization?

Mr. Kelley. And the character of the operation.

The Chairman. But where you need to go to great depths to get the high-grade ore or to employ a larger number of miners to get it out—that naturally increases the cost.

Mr. Kelley. Right.

The CHAIRMAN. Since you can distinguish between high-grade ore and low-grade ore, why is there any difficulty in distinguishing between low cost operations and high cost operations?

Mr. KELLEY. Well, if you define the term, I can tell you how much copper can be produced relative——

The CHAIRMAN (interposing). You and counsel did not seem to be able to get to an understanding on this and I am just trying to clear it up in my own mind as to why you seem to be——

Mr. KELLEY (interposing). What I am trying to say is we say hot or cold, but when we come to measure hot or cold you ask me if it is a hot day or cold day. We have a measure, that is, a thermometer. When you say high or low cost, those are comparative terms that are just as indefinite to my mind as hot or cold. But if you say how much copper, if any, can be produced under 6 cents a pound or under 8 cents a pound, or under 10 cents—that means something. Now, the lowest bracketed copper here is given at under 12 cents. We have made studies of the thing and I think we could bracket within reasonable levels copper costs within certain levels. The Rhodesians are comparable in cost to some of the best mines in the world. They are not the cheapest cost producers by any means, measured in sterling or measured in cents.

The CHAIRMAN. Then, by and large, the Rhodesians are low-cost producers?

Mr. KELLEY. Yes they are, they are lower than the higher.

The CHAIRMAN. In other words, when you come to Washington in the summertime you know it is hot though you may not be able to determine just exactly what the thermometer would show.

Mr. KELLEY. But I have been in places where it was hotter.

Mr. PIKE. You wouldn't have any trouble, Mr. Kelley, in putting the Rhodesians and the Chileans in the bracket under 8 cents?

Mr. KELLEY. I think that is right.

Mr. PIKE. Or a lot of them—and they are all new—that came in since 1920; the Chileans since '20 and the Rhodesians since '30. They are all on the low side of the average cost?

Mr. KELLEY. Yes, although it varies between one and the other.

Mr. SCOLL. Which domestic United States producers were most affected in foreign markets by the increase in low-cost competition we have been referring to?

Mr. KELLEY. The higher cost producers, unquestionably.

Mr. SCOLL. Would you care to name any of them?

Mr. KELLEY. No. I would not care to because I don't know. I could estimate.

Mr. SCOLL. What happened to their share of the export market?

Mr. KELLEY. Where?

Mr. SCOLL. My point is when did the coming in of the low-cost producers cause some of the American producers to lose out in the export trade?

Mr. KELLEY. Unquestionably it was the tremendous increase in foreign production which could be made at a cheaper cost than the average of American production, plus the tariff.

Mr. SCOLL. We are getting a little ahead of ourselves on the tariff. We are still at 1930.

Mr. KELLEY. Oh.

Mr. SCOLL. I want to ask you one question. In your opinion, did the 18 cent price have anything to do with the African mines coming into production sooner?

Mr. KELLEY. It did not because the plans for the development and finance of the African mines had been fully completed although the work itself had not been completed prior to the 18 cent price. That is my recollection.

Mr. SCOLL. Let's go back a little further.

Mr. PIKE. Possibly I can help on that particular point. I was working on the Africans at the time. Plans had been completed and part of the financing done at that time—not the final financing. Plans for the Mufulira had been made but were delayed. It was 2 or 3 years—I will put it this way, they were delayed by the break after the 18 cent price, but they were not far enough along to be affected either way. In the case of the N'Kana the plans had been made and I don't think there was any change. They were done by a British group and it took them about 2 years longer, possibly, to get into production than the comparable mines that were being developed by the Americans. The N'Changa was stopped at the break and never has gone into production as yet.

Mr. KELLEY. Because of physical conditions there.

Mr. SCOLL. The prices of copper after the formation of Copper Exporters until the break in the 18 cent price must have stimulated exploration and development of mines in Africa and elsewhere, did they not?

Mr. KELLEY. These great mines in Africa had been prospected for, were known, and were of such a grade of ore that under all of the circumstances that had ever applied in the industry, they would have been developed at an average price for copper.

Let me put it that way. The 18-cent price which lasted approximately a year was reached after—as Mr. Pike suggests—long after the discovery of the ore bodies when the plans were under way and had nothing to do with the price.

Mr. PIKE. It may be interesting there that the Roan, which afterward became the Roan Antelope was patented in 1902. Those bodies were all known in the first half of the first decade of the century and they were not developed because the Bwana, which looked like the best one of them, turned out to be a very bad mine.

Mr. KELLEY. It turned out in the 20's to be no good.

Mr. O'CONNELL. It would be reasonable to assume, would it not, that the rising price structure and the more favorable position of the industry in the period between 1926 and 1930 plus the stability of price during that year—beginning early in 1929—would have stimulated the development of properties already known to exist?

Mr. KELLEY. Right, but I understood counsel to fix it to the 18-cent price.

Mr. SCOLL. I was making a question of my own.

Mr. KELLEY. You are right.

Mr. SCOLL. Some of these producers were brought in to Copper Exporters, Inc., I believe. Roan Antelope joined in 1932, did they not?

Mr. KELLEY. In the Copper Exporters?

Mr. SCOLL. Copper Exporters, Inc.

Mr. KELLEY. Really, I don't know.

Mr. SCOLL. It isn't important; I believe that is right.

The CHAIRMAN. It is a fact, isn't it? Did I understand your assistant to say that?

Mr. KELLEY. Yes. I had forgotten.

Mr. SCOLL. Were any concessions made to get them into Copper Exporters Inc., or did they come in on the same basis as everybody else?

Mr. KELLEY. If you will ask me just what you have in mind I can answer.

Mr. SCOLL. I mean in the matter of preference as to sales allocations.

Mr. KELLEY. Not that I recall.

Mr. SCOLL. Were there any concessions of any kind?

Mr. KELLEY. Not that I recall.

PRODUCTION CURTAILMENTS, 1930–1932

Mr. SCOLL. Now will you turn back to "Exhibit No. 2100," the World Summary of Copper? [1] That shows, does it not, that the accumulation of stock, copper above the ground, was fairly close to United States production for the whole year, does it not?

Mr. KELLEY. When are you inquiring?

Mr. SCOLL. I am inquiring about 1930.

Mr. KELLEY. In 1930?

Mr. SCOLL. I can give you the figures. In 1929 the production was 1,026,000 short tons; stocks at the end of the year were 403,000 short tons. In other words, 40 percent of production. In 1930 production had dropped to 711,000 short tons; stocks on hand at the end of the year were 533,000 short tons. In other words, 75 percent of production. I am referring, of course, to the United States only.

Mr. KELLEY. Go ahead. Those figures I have no doubt are correct.

Mr. SCOLL. At that current rate of demand, 533,000 tons would have lasted quite a long while, wouldn't it?

Mr. KELLEY. The stocks?

Mr. SCOLL. Yes.

Mr. KELLEY. Yes; you have given the figures.

Mr. SCOLL. So that that was really the background, was it not, for the discussions of curtailment that took place in the Copper Institute in November 1930?

Mr. KELLEY. Right, except this, the Copper Institute was the only organization in the industry, and the first meeting that was held was called under its auspices, but inasmuch as the question of production was foreign to its purpose—if I remember, I think we simply recited something and then adjourned. Then we met informally as copper producers rather than members of the Institute.

The CHAIRMAN. When you took a recess you changed your function?

Mr. KELLEY. No, we canvassed the situation, Senator. A number at least of the important people did not attend the meeting of the Institute, and we informally said, "we will meet uptown at a different date entirely." I merely say that because we did want to keep the Copper Institute clean as a statistical organization.

[1] Appendix, p. 13394.

The CHAIRMAN. You wanted to keep it clear of any involvement in any discussion among the producers of the problem of curtailment?

Mr. KELLEY. Right.

The CHAIRMAN. But the same persons who discussed curtailment as producers were also members of the Institute?

Mr. KELLEY. Practically the same, except that we have foreign people in the Institute, too.

The CHAIRMAN. Here again we have the same situation as was revealed in the export trade.

Mr. KELLEY. It is the same crowd.

Mr. SCOLL. I have here a summary in the form of a report of the investigator of the Department of Justice on those meetings which Mr. Kelley and his counsel has received, and I think it would save a lot of time if I could just insert this into the record, (and of course substitute a certified copy for it later), rather than go into a discussion of those meetings.

The CHAIRMAN. That may be, but let me insert in the record before the interruption my comment upon the condition just described by Mr. Kelley, where he said it was the same crowd. The same actors in different costumes.

Mr. KELLEY. Perhaps that is a good way to put it.

The CHAIRMAN. The exhibit may be received.

Mr. SCOLL. I will offer, then, as the next exhibit, a report of an investigator, W. C. Gorsuch, dated November 18, 1930, and I ask the privilege of withdrawing it and substituting a certified copy at a later date.

(The report referred to was marked "Exhibit No. 2138" and is included in the appendix on p. 13467.)

Mr. SCOLL. There were some discussions, were there not, concerning the legality of any general curtailment by the industry?

Mr. KELLEY. Yes; there were.

Mr. SCOLL. And I believe the Department of Justice inquired into it?

Mr. KELLEY. It did.

Mr. SCOLL. Investigated and asked questions?

Mr. KELLEY. It did.

Mr. SCOLL. And pursuant to those inquiries the Copper Institute, or shall I say under the imprint of the Copper Institute——

Mr. KELLEY. All right.

Mr. SCOLL. A memorandum was prepared dated January 9, enclosing copies of minutes of the Copper Institute meetings of November 3, 1930, and January 5, 1931, covering the whole situation, telling who was there, and what generally took place. I believe you are familiar with that?

Mr. KELLEY. I am familiar, but I would like this comment, if I may be permitted to have it appear in the record. If you will look at the chart [1] showing the stocks of production and consumption of copper during the period you will see the perfectly extraordinary increase that had occurred in stocks, the over-production that had continued in the face of a diminishing demand. The stock that we referred to this afternoon as 612,000,000 pounds grew to a maximum of 1,412,000,000 pounds.

The CHAIRMAN. In what month was that?

[1] "Exhibit No. 2131-C", appendix, facing p. 13455.

Mr. KELLEY. That was later.

The CHAIRMAN. The first one was in October 1928, and this one?

Mr. KELLEY. October 1931.

The CHAIRMAN. In October 1931 the stocks had increased to 1,000,000,000 what?

Mr. KELLEY. 1,412,000,000 pounds.

Mr. O'CONNELL. Have you a figure showing the stocks as they existed at about the time these meetings were taking place? That was in the latter part of 1930?

Mr. KELLEY. In the latter part of 1930, the stocks had increased to a total of 1,230,000,000 pounds; the refined stock alone was 757,000,000 pounds. On the other hand the deliveries had dropped to around 280 to 290 million pounds. So it was apparent that something had to be done about the situation.

The CHAIRMAN. Too much copper?

Mr. KELLEY. Too much copper; too little business; a disordered world and a crumbling price.

Mr. O'CONNELL. Too much competition?

Mr. KELLEY. Too much production and too much competition, maybe. At any rate, the industry was facing a crisis, and we held these meetings. We kept minutes of the proceedings; in the resolutions we recited the facts; in addition to our own counsel for the respective companies we had Colonel Donovan, who was employed by the industry—by the association or the group. We were advised that under those circumstances when an emergency existed, that the purpose of a curtailment program was not to fix or increase the price but to save an industry from insolvency.

Under those conditions and within those limitations there was nothing in the law that compelled us to go on producing until bankruptcy resulted. The complete file was taken by the Colonel and, I believe, presented to the Government—the Federal Trade Commission—for an investigation; every fact in detail was given to it and to the Department of Justice, and that curtailment was not sufficient, so that subsequently in 1931, I think, and finally 1932, we held more successive curtailments until the industry was down practically on its back.

The CHAIRMAN. Curtailment of production?

Mr. KELLEY. Right.

The CHAIRMAN. You were setting the example for the A. A. A., in other words?

Mr. KELLEY. We hadn't had the benefit, I think, of that example at that time. That was prior to 1933.

Mr. SCOLL. May I introduce at this time the minutes of meetings of Copper Institute, November 3 and January 5, 1931?

The CHAIRMAN. Have the minutes been identified? Are these the minutes, Mr. Kelley?

Mr. SCOLL. These are copies from the files.

Mr. WOLFF. They are.

The CHAIRMAN. They may be admitted.

(The minutes referred to were marked "Exhibit No. 2139" and are included in the appendix on p. 13473.)

Mr. O'CONNELL. May I ask whether you obtained a formal opinion from your counsel?

Mr. SCOLL. I was just getting to that. May I offer also at this time a press release dated November 14, 1930? First of all I would like to show it to Mr. Kelley and ask him if he recalls the press release that was issued in connection with the 1930 curtailment?

Mr. KELLEY. Yes, that is right.

The CHAIRMAN. The exhibit may be received

(The press release was marked "Exhibit No. 2140" and is included in the appendix on p. 13478.)

Mr. SCOLL. Mr. O'Connell asked you whether you had obtained opinion of counsel in connection with this. You did obtain such opinion, didn't you?

Mr. KELLEY. We did obtain a considered written opinion of counsel. That is embodied in the minutes of the meeting as part of the record and exhibited to the proper governmental authorities. Now you asked me also, did we receive advice from the Government?

Mr. O'CONNELL. That wasn't my last question. I take it the opinion is generally to the effect that what you proposed to do could be done within the framework of the law?

Mr. KELLEY. Right, under the emergency conditions that prevailed.

Mr. SCOLL. I was going to introduce the full opinion in the record, but I think it would be well to quote a short part at this point. The opinion is the opinion of William J. Donovan, dated November 13, 1930, entitled "Opinion in re Legality of Reduction in the Production of Copper." [reading from "Exhibit No. 2141"]:

> A final meeting was held on November 13, 1930. The opinion was then generally expressed that in order to safeguard the industry and to insure the protection of its employees, it was essential to recognize the danger resulting from overproduction and that this danger could be met only by each producer's making such reduction as he felt the interest of his stockholders, his employees, and his situation would permit him to make. It was pointed out that curtailment was inevitable because unless the present situation was corrected, such curtailment would come by the shutting down of plants during the period of subnormal demand or by the closing of plants due to insolvency. It was stated that rather than have curtailment come by this disorderly method, it was advisable that it should come by the intelligent and prudent action of each individual producer. Each of the representatives of the various copper companies represented at the meeting stated its current production of copper and what decrease, if any, they expected to make in that production. * * * The amount of reduction which the various producers of copper stated they expected to make totaled in the aggregate approximately 23,000 tons per month. Of this total the companies producing copper outside the United States indicated that they expected to reduce their output approximately 13,991 tons per month. Those in the United States stated that they intended reducing their production 6,075 tons per month, and those companies operating both within and without the United States approximately 3,500 tons per month.

The last two referred to I believe were Kennecott and Anaconda, the two United States producers producing outside the United States?

Mr. KELLEY. Yes.

Mr. SCOLL (reading further):

> It is estimated that if each producer curtails his output as indicated, the production of copper will be approximately equal to the present demand for copper.
>
> There was no common date fixed for the beginning of this curtailment and no formal agreement written or oral as to the amount or the period of curtailment. There was no promise by or obligation upon any producer that would prevent his taking any action which he might see fit to take at any time. There was no penalty or criticism for the failure of a producer to decrease his production although it was felt that the recognition of the problems facing the industry and the sense of responsibility on the part of the individual producer would guide him in carrying out his stated reduction if the period of subnormal demand for copper continued and in increasing his production when conditions warranted it.

I offer this opinion now for the record.

The Chairman. It may be received.

(The opinion referred to was marked "Exhibit No. 2141" and is included in the appendix on p. 13479.)

Mr. Scoll. As a result of that meeting and the arrangement that was undertaken, each producer was allotted a share of the general curtailment, is that correct? That is, each producer was called upon to decrease his production by a certain percentage?

Mr. Kelley. That is not quite in accord with my recollection. My recollection is that each producer, knowing his current production, knowing the amount of the "kitty" that was required, knowing what he ought to do and probably what he did do, would put down on a piece of paper the tonnage he would reduce and Mr. Eckert passed the hat and collected it and told us the aggregate. Is that right?

Mr. Scoll. That is all right.

The Chairman. In other words, there wasn't an agreement but you came to a common understanding?

Mr. Kelley. It was an informal understanding.

The Chairman. As a practical situation you wanted to curtail production and at the same time you didn't want to be put in the position of violating the law, so that there was no written agreement and there was no actual oral agreement, as we put it, but you reached the objective just the same?

Mr. Kelley. That is correct.

The Chairman. Because you felt it was necessary to do that in order to preserve the industry?

Mr. Kelley. Absolutely.

Mr. O'Connell. This legal opinion—as I read this one paragraph—would indicate that the writer of the opinion assumed a legal agreement existed, but came to the conclusion that under all the circumstances it did not constitute a combination in restraint of trade.

Mr. Kelley. A question of whether or not there was an agreement? The Senator has really stated. Yes and no—there was an understanding, and as far as I was concerned, I felt bound.

The Chairman. And here there were certain producers in foreign countries who had to curtail a certain amount, if all were to bear the burden equitably, and then there were producers in the United States who had to bear a certain share of the curtailment if it was to be equitable, and then there were other producers operating both in the United States and in foreign countries under a like burden, and all three classes operated together, the curtailment was made, and everybody was satisfied.

Mr. Kelley. It was the best that could be done under the circumstances, we felt.

Mr. Scoll. Was any arrangement made to hold the adherence of each producer to his quota?

Mr. Kelley. None; one thing should be added—that at the time that occurred the price of copper was at the lowest point on record. I think it got down to 5 cents a pound.

Mr. Scoll. Following the 1930 reduction, I believe you already mentioned the fact that the situation got worse instead of better, from '30 on?

Mr. Kelley. Yes.

Mr. Scoll. So that by the end of 1931 the producers were again considering a further curtailment?

Mr. Kelley. That is right.

Mr. Scoll. And I hand you now a press release dated December 21, 1931. That is a press release which announced the reduction to 26½ percent of estimated capacity by the producers?

Mr. Kelley. That is right.

Mr. Scoll. Is that the release that you agreed on?

Mr. Kelley. I think it is.

Mr. Scoll. May I offer that for the record?

The Chairman. It may be received.

(The press release referred to was marked "Exhibit No. 2142" and is included in the appendix on p. 13485.)

Mr. Kelley. My recollection is at each successive step we filed the minutes of the meeting immediately with the Federal Trade Commission.

Mr. Scoll. And all the producers participated?

Mr. Kelley. The minutes will show.

Mr. Scoll. What was the attitude of Katanga toward a reduction in 1931?

Mr. Kelley. In '31, Katanga, I think, was favorable to a reduction. We always had difficulty with Katanga because the Belgium Government owned a majority of the shares and they looked upon the operation in the Belgian Congo as a colonization scheme. They were more interested in the whole situation out there than they were in the price of copper or the production of copper.

The Chairman. Were there any other producers in which foreign governments held ownership?

Mr. Kelley. I know of none in which they hold direct participation.

Mr. Scoll. But indirectly?

Mr. Kelley. In the general set-up of the Rhodesian situation the chartered company has some sort of a concession from the Rhodesian Government and pays a leasehold fee and so forth, to it—not an ownership.

Mr. Scoll. That is an independent arrangement. I would like to offer at this time, Senator, a report of an investigation by W. C. Gorsuch, of the Department of Justice, which contains a general summary of the discussions, meetings, and details concerning the further curtailment in 1931. I will later withdraw it and substitute a certified copy. The date is November 17, 1931.

The Chairman. It may be received.

(The report referred to was marked "Exhibit No. 2143" and is included in the appendix on p. 13486.)

The Chairman. You are familiar with this material?

Mr. Kelley. Yes.

Mr. Scoll. I offer at this time a report of an investigator, Department of Justice, dated December 18, 1931.

The Chairman. It may be received. It will be authenticated?

Mr. Scoll. A substitute certified copy will be filed.

(The report referred to was marked "Exhibit No. 2144" and is included in the appendix on p. 13491.)

Mr. Scoll. Mr. Kelley, do you recall at any time during these discussions of curtailment whether certain American producers used

the threat of the tariff as a means to induce the foreigners to cooperate with them?

Mr. KELLEY. No, I wouldn't say that they used a threat of a tariff. They were perfectly open about it; that is certain groups felt in order to protect the industry of the United States from this great flow of cheap copper from abroad it was necessary to have a tariff, and they pursued that policy; and, as you know, finally the Senate adopted a resolution, instructed the Tariff Commission to make an investigation, and it was made, and following that the excise tax of 4 cents a pound was passed.

Mr. O'CONNELL. Do you know whether the Tariff Commission recommended a 4-cent tariff?

Mr. KELLEY. The Tariff Commission, according to my recollection—may I refer to it?

Mr. O'CONNELL. Surely.

Mr. KELLEY. The Tariff Commission found the difference in the cost of production within the United States and without, and my recollection is they recommended a lesser amount. They didn't make a recommendation but there was something in here. I am really confused between this and the debate in Congress.

Mr. O'CONNELL. We can clear it up maybe tomorrow.

Mr. SCOLL. Was the passage of the excise tax in any way related to the failure of the curtailment programs?

Mr. KELLEY. No. If it was I don't see the correlation.

The CHAIRMAN. Did the curtailment program fail?

Mr. KELLEY. No. It failed to the extent, Senator, that—as I said this afternoon—the depression kept getting deeper and wider and broader and finally we got down to where we were selling copper for 5 cents a pound, and then——

The CHAIRMAN (interposing). But production had been cut down?

Mr. KELLEY. Yes; production was cut down.

Mr. SCOLL. Was the European price depressed as a result of the excise tax, or was Copper Exporters able to hold the price in spite of the tax?

Mr. KELLEY. Oh, no; it all went together.

Mr. SCOLL. You recall, do you not, that late in 1932, about November, a final meeting was held by world producers in an effort to try to meet the situation. I would like to ask you what was discussed at that meeting—what happened?

Mr. KELLEY. In 1932, in December, the situation was quite chaotic, and some gentlemen representing copper producers without the United States came over and we had a discussion. At that time the Rhodesian producers had not completed their development and there was a difference of opinion that was serious, principally between those groups, as to their relative positions, and also as to their relative positions in reference to Katanga. The result was there was no agreement on anything, as I recall it. We never even had a conference. We didn't get as far as that. We had talks. There was no use calling a conference unless you felt something could be done.

Mr. O'CONNELL. You could have a conference without having your expectations realized.

Mr. KELLEY. We had individual talks.

Mr. SCOLL. Prior to the November meetings in 1932, International Nickel, Cerro de Pasco, and Chile Copper Co., the Anaconda subsidiary, resigned from Copper Exporters. Is that correct?

Mr. KELLEY. I think it is.

Mr. SCOLL. And thereafter Copper Exporters ceased to be a factor in the export trade?

Mr. KELLEY. Right, and was subsequently dissolved, as I recall it.

Mr. SCOLL. I would like to offer at this time two clippings covering the meetings at the end of November and the break-up of Copper Exporters, Inc. The first clipping is, "Copper War Likely as Parley Cracks," from the New York Times, December 9, 1932.

The CHAIRMAN. It will be received.

(The clipping referred to was marked "Exhibit No. 2145" and is included in the appendix on p. 13495.)

Mr. SCOLL. The next one is a clipping dated July 11, 1932, from the New York Times, "Three big units quit copper export body."

The CHAIRMAN. It may be received.

(The clipping referred to was marked "Exhibit No. 2146" and is included in the appendix on p. 13496.)

Mr. SCOLL. First of all, before we leave this period of curtailment programs from 1930 to 1932, you mentioned, I believe, that the Department of Justice investigated you on these various programs. As far as you know, no action was ever taken, was there?

Mr. KELLEY. No; no action other than the investigation.

COPPER AND THE LONDON ECONOMIC CONFERENCE, 1933

Mr. SCOLL. Did you participate in any discussions early in 1933 with respect to having copper placed on the agenda of the London Economic Conference?

Mr. KELLEY. I knew that it was being considered and I discussed the matter; yes.

Mr. SCOLL. At whose suggestion was the discussion started?

Mr. KELLEY. I really don't know. I had nothing more to do with it than this. I can tell it very briefly. I came over here and met Mr. Raymond Moley and Mr. Warburg and Dr. Feis.

Mr. SCOLL. Who arranged the conference?

Mr. KELLEY. My recollection is that Frank Walker did. We discussed the matter and the question was whether or not—I might say that I think the Administration was sympathetic to the copper situation at the time and manifested a deep interest in it, and the question was whether or not copper should be placed upon the official agenda at the—then—coming London Economic Conference.

Mr. SCOLL. What decisions were made or what proposals were considered, do you recall?

Mr. KELLEY. I don't know personally what happened to it after that. We discussed the matter.

The CHAIRMAN. Did it get on the agenda?

Mr. SCOLL. I was just going to introduce for the record now excerpts from a report of the League of Nations, Monetary and Economic Conference, London, 1933. May I read a brief paragraph from it? On page 27 of the report occurs this paragraph [reading from "Exhibit No. 2147"]:

> Copper: Resolution Adopted by the Sub-Commission.

This was a subcommission of the Monetary and Economic Conference held in London. [Reading further]:

> The delegation of the United States of America calls attention to the desirability of considering plans for the coordination by international agreement of the pro-

duction and marketing of copper, which was included among the products mentioned in the proposal made by the French delegation on June 19th (document Conf. M. E./C. E. 8). In order to provide the basis for the future discussion of plans for the coordination of production and marketing of copper, further preliminary studies should be made. Accordingly, it is proposed that the Governments of the copper producing countries submit to the Secretary-General of the Monetary and Economic Conference, before September 15th, 1933, their views and proposals concerning the organization of the production of copper and of the international trade in this product, with a view to the summoning of a suitable meeting to examine whether it is possible and expedient to conclude an agreement.

There is a further note in this document on page 46 which I will quote:

The Governments of the copper producing countries are invited to submit before September 15th, to the Secretary-General of the Conference, their views and proposals concerning the organization of the production and international trade in copper with a view to the summoning of a meeting of experts qualified to examine if it is possible and expedient to conclude an agreement.

You don't happen to know personally what happened to that, do you?

Mr. KELLEY. No; I don't.

Mr. SCOLL. I would like to offer as an exhibit, excerpts from the report of the subcommittee of the Monetary and Economic Conference.

The CHAIRMAN. It may be received.

(The excerpts referred to were marked "Exhibit No. 2147" and are included in the appendix on p. 13496.)

Mr. SCOLL. That concludes what I have, Senator. I would suggest that we put into the record a communication from Mr. Kelley dated October 21, 1931, to the Board of Review, Federal Trade Commission, Washington, D. C.[1]

Mr. WOLFF. That communication is from Colonel Donovan, not from Mr. Kelley, to the Board of Review.

Mr. KELLEY. It wasn't signed.

Mr. SCOLL. It was at Mr. Kelley's request.

The CHAIRMAN. Have you any comment on that to make, Mr. Kelley?

Mr. KELLEY. No.

Mr. WOLFF. I think it should be accompanied with the Colonel's memorandum of the law.

The CHAIRMAN. The memorandum may be received.

(The memorandum referred to was marked "Exhibit No. 2148" and is included in the appendix on p. 13500.)

The CHAIRMAN. Is there anything else, Mr. Scoll?

Mr. WOLFF. Here is the exhibit of the costs found by the Tariff Commission.

Mr. SCOLL. We can put that in now.

The CHAIRMAN. You offer it at the request of Mr. Kelley?

Mr. SCOLL. Yes.

The CHAIRMAN. It will be inserted in the record.

(The table referred to was marked "Exhibit No. 2149" and is included in the appendix on p. 13506.)

The CHAIRMAN. It is quite evident, Mr. Kelley, that we have been dealing and you have particularly been dealing with a world problem in the production and distribution of copper, the production and distribution in all cases being carried on by large organizations. The

[1] Previously entered as "Exhibit No. 2132," appendix, p. 13456.

trade is one which overflows all geographical boundaries and involves the activity not only of individuals, but more importantly of corporations and sometimes of governments. Is that not correct?

Mr. KELLEY. That is correct.

The CHAIRMAN. And of course the interrelation of these various entities with one another and the effect of that interrelation upon the inhabitants of the various countries and particularly of the employees is one of very great moment.

Mr. KELLEY. Very.

The CHAIRMAN. Do you have any comment to make now? We have kept you here for a long time. Is there anything further that you would like to add?

Mr. KELLEY. I wonder if you would have the patience to let me comment for just a moment in summation? I don't know why it is that the copper industry should excite as much curiosity as it does, nor why its problems should be commented upon as much as they are. Volumes have been written and treatises—almost—have been formulated upon the fact that copper maintained a price of 18 cents for a year. There is nothing unusual about it. I have stated frankly to the committee that for a period that price was a fictitious price and the reason why we endeavored to hold it in a cooperative effort. I would like to call attention to the fact that according to the United States Bureau of Labor Statistics, sulfur, nickel, aluminum, quicksilver, oil, crude petroleum, fuel oil, iron ore Bessemer, pig iron, pipe, cast-iron pipe, steel rails, and an infinite number of commodities held the same price that prevailed in April 1929, or advanced above that level, and that it was not a situation that was confined to copper alone, and I think as a matter of information we should offer that for the record.

The CHAIRMAN. They may be received.

(The documents referred to were marked "Exhibit No. 2150" and are included in the appendix on p. 13506.)

The CHAIRMAN. Of course, the interest may be due to some extent to the fact that a great many people use copper, that a great many manufacturers use it, and it may also be due to the fact that a great many people own copper stocks. I think most people have very lively recollection of some active campaigns that were undertaken before the crash of 1929 to distribute the stocks of various copper companies among the people.

Mr. KELLEY. There is no doubt about that.

The CHAIRMAN. How many stockholders are there, for example, in the Anaconda Corporation?

Mr. KELLEY. About 112,000.

The CHAIRMAN. How many of those own less than 100 shares each?

Mr. KELLEY. That I couldn't say; but I would be glad to furnish a list.

The CHAIRMAN. What would you think?

Mr. KELLEY. I would say the great majority.

The CHAIRMAN. The great majority own less than 100 shares?

Mr. KELLEY. Oh yes; undoubtedly.

The CHAIRMAN. How about the subsidiaries?

Mr. KELLEY. The subsidiaries are owned by the company.

The CHAIRMAN. How many subsidiaries does Anaconda have?

Mr. KELLEY. About 30.

The CHAIRMAN. Where are they incorporated?

Mr. KELLEY. In various States.

The CHAIRMAN. Foreign nations?

Mr. KELLEY. Some.

The CHAIRMAN. How many foreign corporations?

Mr. KELLEY. Only one that I can remember.

The CHAIRMAN. What is that?

Mr. KELLEY. The Cananea Consolidated Copper Co., S. A., of Mexico.

The CHAIRMAN. Doesn't that indicate why there would be a good deal of interest in copper?

Mr. KELLEY. Oh yes; but I think the interest is perfectly natural, but what I tried to point out is that we were not alone as a commodity that maintained a price level over that period.

The CHAIRMAN. Do you think that it would be reasonable to say that there was a greater degree of concentration in the ownership of copper deposits than in the ownership of deposits of zinc, for example?

Mr. KELLEY. Yes; I think there is.

The CHAIRMAN. There is a greater degree of concentration?

Mr. KELLEY. Yes.

The CHAIRMAN. That also might be an explanation of the greater interest.

Mr. KELLEY. It might be. You referred to one other thing, Senator, that I think might be helpful, just as a matter of information. We have prepared a compendium regarding the uses of copper, where it goes, how much of the cost of structure is represented by copper in various types of buildings and transmission lines and things of that kind, and I don't know whether it should be introduced in the record or should be filed.

The CHAIRMAN. That is a rather formidable looking document. I would be very glad to have it filed, but perhaps not made a part of the record.

Mr. KELLEY. I think I would like to have it filed for record.

The CHAIRMAN. If you have any charts that would indicate in a brief way the use of copper, we would be very glad to have them in.

Mr. KELLEY. I think it is all contained in there.

The CHAIRMAN. Or if you care to have a summary of this prepared to be printed in the record.

Mr. KELLEY. It is not as formidable as it looks. It gives various illustrations of how much copper costs in a modern six-room house and a typical farm building with outbuildings—the Government is interested in that—in transmission lines, rural and urban distributing lines, the telephone industry, and in household appliances. It shows what an infinitesimal amount of the cost of construction is applicable to the quantity of copper used. That is the purpose.

The CHAIRMAN. The committee will be very glad indeed to have it available, Mr. Kelley. Is there any other comment you care to make?

Mr. KELLEY. None.

The CHAIRMAN. Let me on behalf of the committee thank you for your great patience and the very great frankness with which you have discussed the matters which have come before us. We are all indebted to you and your testimony will be very helpful.

(The documents referred to were marked "Exhibit No. 2150–A and are included in the appendix on pp. 13508–13509 and facing p. 13509.)

Mr. Kelley. Thank you, Senator. May I express my appreciation of the courtesy of yourself, your colleagues on the committee, and of counsel and his assistants.

The Chairman. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon at 5:50 p. m. the committee recessed until 10:30 Thursday morning.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, JANUARY 18, 1940

United States Senate,
Temporary National Economic Committee,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Wednesday, January 17, 1940, in the Caucus Room, Senate Office Building, the chairman, Senator Joseph C. O'Mahoney, presiding.

Present: Senators O'Mahoney (chairman) and King; Representative Williams; Messrs. Pike, O'Connell, Lubin, and Brackett.

Present also: Joseph E. Sheehy and Ellen L. Love, Federal Trade Commission; W. A. Janssen, Department of Commerce; Theodore J. Kreps, economic advisor; Samuel Moment, economic analyst; and David E. Scoll, counsel to the committee.

The Chairman. The committee will please come to order.

Are you ready to proceed, Mr. Scoll?

Mr. Scoll. Yes; I am, Senator. Before we proceed with the next witness, I have here two charts that were prepared by officers of Copper Exporters, Inc.: One shows a comparison of domestic prices and foreign prices of the Copper Export Association, 1919 to 1924.

The Chairman. It may be received.

(The chart referred to was marked "Exhibit No. 2151" and appears in the appendix facing p. 13510. The statistical data on which this chart is based are included in the appendix on p. 13510.)

Mr. Scoll. The next chart shows the export prices of Copper Exporters, Inc., and domestic price, delivered Connecticut Valley, 1926 to 1931. I should like to be permitted to withdraw these charts for the purpose of substituting copies of more convenient size for the record.

The Chairman. That will be satisfactory.

(The chart referred to was marked "Exhibit No. 2152" and appears in the appendix facing p. 13518. The statistical data on which this chart is based are included in the appendix on p. 13518.)

Mr. Scoll. Our witness today is Mr. E. T. Stannard.

The Chairman. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. Stannard. I do.

TESTIMONY OF E. T. STANNARD, PRESIDENT, KENNECOTT COPPER CORPORATION, NEW YORK, N. Y.

Mr. Scoll. Will you tell the reporter your name?

Mr. Stannard. E. T. Stannard.

Mr. Scoll. And what is your occupation?

Mr. STANNARD. I am president of Kennecott Copper Corporation.

Mr. SCOLL. How long have you been in the copper business?

Mr. STANNARD. Since 1911, 29 years.

Mr. SCOLL. Most of that time with Kennecott?

Mr. STANNARD. All of that time with Kennecott.

Mr. SCOLL. Will you give a brief description of the Kennecott properties and their operation?

Mr. STANNARD. We have at the present time four copper properties in the United States and one property in Chile. Kennecott also owns the Chase Brass & Copper Co., a brass fabricating concern, and the Kennecott Wire & Cable Co., a small wire concern.

Mr. SCOLL. I believe you stated you are the president of Kennecott?

Mr. STANNARD. I am the president of Kennecott Copper. I am also the president of Braden Copper Co. which operates a property in Chile.

Mr. SCOLL. Did you mention the Utah Copper Co.?

Mr. STANNARD. Kennecott owns the entire stock of the Utah Copper Co. The Utah Copper Co., as it exists today, is a company organized purely for operating purposes at the property in Utah. Kennecott also owns the stock of the Nevada Consolidated Copper Corporation, which operates the properties in Nevada, Arizona, and New Mexico, for Kennecott.

Mr. SCOLL. Now, the Utah property consists of a considerable quantity of copper ore reserves, does it not?

Mr. STANNARD. It does.

Mr. SCOLL. And it is what is known in geology as a porphyry.

Mr. STANNARD. That is right.

Mr. SCOLL. Is Utah fully utilizing its productive capacity at the present time?

Mr. STANNARD. Practically so.

Mr. SCOLL. Is that usual or is that occasional?

Mr. STANNARD. It is occasional. I might say that over a period of years, we are not able to operate at better than about 60 percent to 65 percent of our installed capacity.

Mr. SCOLL. Is Braden operating at capacity?

Mr. STANNARD. Braden is not operating at capacity today.

Mr. SCOLL. Is Braden a porphyry?

Mr. STANNARD. It is a low grade property. It is not exactly a porphyry, it is half porphyry and half andesite.

Mr. SCOLL. Is it a surface operation?

Mr. STANNARD. No; it is an underground operation. In that property a tunnel is run into the mountain. The ore body is above this tunnel so that the ore is all dropped down to the haulage level instead of being hoisted.

Mr. SCOLL. And Utah is a surface operation?

Mr. STANNARD. Utah is a surface operation and also the properties in New Mexico and in Nevada are surface operations. The one in Arizona is an underground operation.

Mr. SCOLL. Are there any other surface operations that are operated by other mining companies in the United States today?

Mr. STANNARD. Phelps Dodge has a surface operation at Ajo, Ariz.—the old New Cornelia property—and it is now developing

an open-pit property at Morenci, Ariz. The Chile Copper Co. operation in Chile is also an open-pit operation at this time.

Mr. Scoll. How long do you estimate that the ore reserves of Utah will last at present, assuming even capacity operation?

Mr. Stannard. That is something I can't say but it would be over 20 years.

Mr. Scoll. Considerably over 20 years?

Mr. Stannard. I can't say.

Mr. Scoll. And what about Braden, their reserves?

Mr. Stannard. Braden has very large reserves and I think that the Braden mine will probably be operating after our mines in the United States are exhausted.

Mr. Scoll. Do you have any other operations, mining operations outside the United States besides Braden?

Mr. Stannard. No, we haven't. We have a small prospecting company, operating in Canada, but nothing in the way of mining operations.

Mr. Scoll. Who smelts the Kennecott ores?

Mr. Stannard. At the plants in Nevada, New Mexico, and Chile we smelt our own ores. In Arizona and in Utah we contract the smelting with the American Smelting & Refining Co.

Mr. Scoll. What is the relationship between Kennecott and A. S. & R. in terms of stock ownership?

Mr. Stannard. There is no stock ownership of one in the other.

Mr. Scoll. There are, however, persons who hold stock in both corporations are there not?

Mr. Stannard. There may be.

Mr. Scoll. Can you state from your knowledge whether such persons own considerable stock in both corporations?

Mr. Stannard. Well, I know of one man in the American Smelting & Refining Co. who holds a very large block of Kennecott stock. I do not know of anyone in the Kennecott Co. who holds A. S. & R. stock, although there may be some who do.

Mr. Scoll. I believe you mentioned Chase Brass as a fabricating unit; that is a subsidiary of Kennecott?

Mr. Stannard. Yes.

Mr. Scoll. Where is that located?

Mr. Stannard. We have plants in Waterbury, Conn. and in Cleveland, Ohio.

Mr. Scoll. Does Kennecott supply the total of Chase's copper needs from its own mines?

Mr. Stannard. Not entirely. Chase buys some Michigan copper from Calumet & Hecla required for special purposes. I cannot say just how much per annum—it might be four or five thousand tons.

THE NATIONAL RECOVERY ADMINISTRATION COPPER CODE

Mr. Scoll. I would like to ask you a few questions about the N. R. A. You were the chairman of the Copper Code Authority, were you not?

Mr. Stannard. I was.

Mr. Scoll. Was it easy or was it difficult for the copper people to agree on a code under N. R. A.?

Mr. Stannard. It was impossible.

Mr. Scoll. How long did it take for you to get a code?

Mr. Stannard. As I remember it now, we started meetings in June 1933. We worked about 7 days a week and many times until 1 or 2 o'clock in the morning, and were pressed all the time by the Deputy Administrator in Washington to hurry up a code. Finally after having worked strenuously for 6 or 7 weeks, we came to Washington—I believe it was the 17th of August 1933. We had a meeting with the Deputy Administrator and told him that we had not been able to get anything like complete agreement. He listened to the positions taken by the various ones, and——

Mr. Scoll (interposing). May I interrupt you just for a moment and ask you what were these different positions?

Mr. Stannard. There were many of them. The customs smelters wanted priority in the market. They said they had to take in secondary copper, and had to sell it at the market, and they wanted a preferred position. Then there was the producer holding stocks of copper versus the producer who did not have any stocks; the producer without any stocks of copper felt that he should have the right to go ahead producing, while the producer with stocks should shut down until he liquidated his stocks. There was also the position of the company with a fabricating outlet versus the company with no fabricating outlet, and then there was the intermediate position of companies with a partial outlet. Those without any fabricating outlet felt that during a period of depression they should be permitted to share in the fabricating outlet of the larger companies, and of course the larger companies took the position that they had paid a great deal of money for those outlets, and when it came to a time of depression that they should have the benefit of these outlets.

Mr. Scoll. Finally, of course, there was a difference of opinion over quotas.

Mr. Stannard. A very decided difference of opinion over quotas.

Mr. Scoll. Correct me if I am wrong, but the producers who operate more than one mining unit had to make concessions to those who operated only one?

Mr. Stannard. That was true.

Mr. Scoll. Do you happen to have before you a copy of the proposed code of fair competition for the copper industry?

Mr. Stannard. I do. This was the proposal dated February 27, 1934.

Mr. Scoll. I refer you to article VII which I believe was printed the same way in the various proposals.

Mr. Stannard. To which one are you referring?

Mr. Scoll. I am referring to article VII in the proposed code as approved on April 26, 1935. I have before me a draft of April 21, 1934, but I think the proposed article VII is the same in all the drafts.

That proposed article VII was the one which was submitted by the industry to the N. R. A., was it not?

Mr. Stannard. It was.

Mr. Scoll. And it represented what was finally distilled out of the various pros and cons and positions?

Mr. Stannard. That is correct.

Mr. Scoll. To summarize briefly, that article proposed that the industry should enter into voluntary agreements with blanket au-

thority to withhold surplus stocks from the market during emergency periods, to regulate, curtail, and allot production, and to provide a minimum sales price, and a plan for the regulation and allocation of sales.

I believe that correctly summarizes it, does it not?

Mr. STANNARD. It does.

Mr. SCOLL. Can you recall whether at that time, at the time of the proposal, the industry had any specific plan they wanted to put into operation under article VII?

Mr. STANNARD. It did not have any specific plan. At the time, I think most of us felt that we had to balance production with consumption, and we thought the most advisable program would be to regulate production to consumption.

Mr. SCOLL. And to provide a minimum sales price?

Mr. STANNARD. Well, we did have that in mind to a certain extent, but there was no unanimity of agreement on that.

Mr. SCOLL. Now you may recall that the code, which was approved by the N. R. A. on April 21, 1934, substituted for the proposed article VII a rather detailed market and price filing plan with sales quotas and allocations.

Mr. STANNARD. That is correct.

Mr. SCOLL. What was the attitude of the industry toward the approved code?

Mr. STANNARD. I do not think anyone in the industry liked it. All of us were for voluntary cooperation in preference to involuntary control. I think each one felt that he got the worst of the deal under the code imposed by the N. R. A.

Mr. SCOLL. Did Kennecott file a protest with the N. R. A.?

Mr. STANNARD. No; we did not file a protest with the N. R. A. At the time this was imposed, April 21, 1934, the N. R. A. Act was to continue until sometime in June 1935, a period of some 14 months. While we were very much opposed to the code and thought we did not get a fair allocation of sales, nevertheless, if we were to take it to the courts we felt it would be in the courts for the full 14 months and therefore decided to accept and go along in the interest of harmony until the N. R. A. Act expired.

Mr. SCOLL. Do you know from your knowledge whether any of the others protested?

Mr. STANNARD. I think one or two of them did protest in writing.

Mr. SCOLL. As a matter of fact, most of them did, didn't they?

Mr. STANNARD. Perhaps they did. I have forgotten that detail.

Senator KING. There were many protests from various industries against the N. R. A.

Mr. SCOLL. But the protest in the case of the copper industry was almost unanimous.

Senator KING. I protested; I said the law was unconstitutional and voted against it and the Supreme Court accepted that view.

Mr. O'CONNELL. May I ask a question? Mr. Stannard, the protest you are referring to was a protest to particular provisions in the code as approved or as imposed by N. R. A. rather than opposition to N. R. A. as such, wasn't it?

Mr. STANNARD. It was in opposition to this code as imposed on the copper industry. We particularly objected to that.

Mr. Scoll. The code provided for the filing of prices, I believe, rather than the actual fixing of minimum prices, did it not?

Mr. Stannard. It did, and during the period of the code, as I recall, there were two price filings; for a period of about 2 months after the effective date the price was 8½ cents per pound, and then beginning sometime in July the price was increased to 9 cents.

Mr. Scoll. At this time, to corroborate your remarks on that, Mr. Stannard, I would like to introduce into the record the list of the prices filed on April 25, 1934, which I believe you have in your hand.

The Chairman. The exhibit may be received.

(The list referred to was marked "Exhibit No. 2153" and is included in the appendix on p. 13526.)

Mr. Scoll. I would also like to insert a memorandum for the Code Authority dated June 12, 1934, which reads as follows [reading from "Exhibit No. 2154"]:

> A price of 9¢ per pound, delivered Connecticut Valley, subject to existing differentials, was filed in the afternoon of June 11th by the following members, such price to be effective at the beginning of business June 12th.

And then follows a list of the members who filed a price of 9 cents on that day.

The Chairman. It may be received.

(The list referred to was marked "Exhibit No. 2154" and is included in the appendix on p. 13526.)

Senator King. Is it your position, Mr. Counsel, that those who accepted the code and tried to carry it out in their business activities or in their industries were violating any law?

Mr. Scoll. Not at all, Senator. I have no interpretation or intention to add to those facts. I merely insert them into the record for what they are worth.

The Chairman. In order that we may see what was done and how this industry operated and what efforts were being made to adjust the problem of distribution and of price and production to the circumstances existing generally at the time?

Mr. Scoll. Thank you, Senator.

Senator King. I may add that the Finance Committee went into all of these code activities, so we have hundreds of pages, if it is important to go into the activities of the Code Authority, and the proceedings under the code would be indefinite.

Mr. Scoll. I have no further documents on the matter, Senator. That concludes that part of the presentation.

I believe, Mr. Stannard, that one of the purposes of the sales plan, in fact the principal purpose of the sales plan, under the code was to provide, as far as possible, a first place in sales for current production. Is that correct?

Mr. Stannard. That is correct.

Mr. Scoll. What provision was made for controlling production of metal from scrap?

Mr. Stannard. The total sales book, as we called it, amounted to 30,500 tons per month. Of that, 9,500 tons were allocated to scrap, 1,500 tons to custom producers, and, I think, 19,500 tons to primary producers.

Mr. Scoll. Was some copper which had been bought by buyers and speculators prior to the code outlawed?

Mr. Stannard. It was.

Mr. SCOLL. Will you explain that briefly?

Mr. STANNARD. You had to have so-called Blue Eagle copper to have it permissible. The copper which had been bought by dealers and speculators could not get a Blue Eagle tag, and therefore fabricators generally could not use that copper.

Mr. SCOLL. How was that copper finally disposed of, do you know?

Mr. STANNARD. I think most of that copper went into the foreign market, or was held until after the N. R. A. expired.

Senator KING. The Blue Eagle, however, was not applied exclusively to the copper industry, was it?

Mr. STANNARD. It was not.

Mr. SCOLL. Would you say that the success of the code was demonstrated by the fact that the domestic price remained at 9 cents while London prices and the New York export prices went considerably lower?

Mr. STANNARD. Well, I think during that particular period it is quite possible that the code did some good over a period of 6 or 8 months, because there was a good deal of chaos, and I think it helped temporarily to stabilize the industry.

Mr. SCOLL. Just perhaps to give you a clear picture of what I mean, I show you "Exhibit No. 2100",[1] and you will notice that during the code period, the New York price—domestic price that is—was stable at 9 cents, while the export price and foreign price dropped considerably under that.

Mr. STANNARD. The foreign price a great deal of that time was under 7 cents per pound.

Dr. LUBIN. Mr. Stannard, what do you think would have happened to the domestic price of copper if it had been impossible to dispose of this surplus, in other words, if we hadn't artificially created a surplus by labeling some copper Blue Eagle copper and some copper illegal?

Mr. STANNARD. Do you mean what would have happened in the United States?

Dr. LUBIN. Yes.

Mr. STANNARD. During that period I believe many of the domestic producers would have kept on producing copper, and the price probably would have been considerably lower in the United States. And it might have been somewhat lower in the European market as well.

Dr. LUBIN. Would it be fair to conclude that during that period the American consumer was subsidizing the foreign consumer?

Mr. STANNARD. Well, I wouldn't think so.

Dr. LUBIN. He was paying more than the foreigner was paying.

Mr. STANNARD. He was paying more than the foreigner was paying, but when you consider that the cost of production in this country was higher than the cost of production abroad, I can't believe that the American consumer was penalized in any way.

Dr. LUBIN. Perhaps I misunderstood you. I thought you had said had it not been for this artificial control the American consumer would have paid less for his copper.

Mr. STANNARD. He probably would have paid less for his copper than he did pay, but at the same time I do not feel that when the American consumer paid a price for copper which was probably less than the cost of production at that time, that he was being imposed upon.

[1] Appendix, p. 13394.

Senator KING. Isn't it a fact that during that period when copper got down to 7 or 8 cents, even 9 cents, that a good many producers of copper were in the red?

Mr. STANNARD. A great many of them were in the red.

Dr. LUBIN. Isn't it true that there are producers of every commodity of every industry who are in the red sometime or other while others are making money?

Mr. STANNARD. That is probably true.

Dr. LUBIN. It never was intended that price levels for any commodity should be set to give profit to every possible producer, the efficient and inefficient alike.

Mr. STANNARD. I think that is correct.

The CHAIRMAN. The point of this testimony, as I see it, is very simple. The effect of N. R. A. was to raise the price to the domestic consumer while the price abroad was lowered. That is correct, isn't it?

Mr. STANNARD. That is correct.

The CHAIRMAN. And that was also true, at least for a time, while the Copper Exporters, Inc., was operating, was it not, if you look at "Exhibit No. 2100".[1]

Mr. STANNARD. That is true, but it is also true, according to this chart, Senator, that during one period when the Copper Exporters, Inc., was operating, for example, the year 1927, the price was lower than it was in the previous 2 years, that is during 1925 and 1926 when Copper Exporters was not operating.

The CHAIRMAN. That may well be, and I don't know that it is altogether relevant to the significant point here, as I see it. In other words, this testimony seems to indicate to me that the effect of the organization which was perfected by the copper industry itself—without the intervention of Government, save that the Federal Trade Commission and the Department of Justice were apprized that such an organization was to be made—and the effect of the organization of the industry under the approval of the N. R. A. were exactly identical, namely, to increase the price to the domestic consumer. That is what happened, is it not?

Mr. STANNARD. It did for a period under N. R. A.

The CHAIRMAN. Yes, and it also did for at least a portion of the time while the Copper Exporters was operating and until the crash came, which upset everything. Isn't that correct?

Mr. STANNARD. It did for a period there; yes.

The CHAIRMAN. Now we may interpret those facts any way we please, don't you know, but this is a fact, that the two things were coincidental. Now of course I assume that there must be very numerous other factors that were affecting the price of copper on both occasions.

Mr. SCOLL. And it was also true, was it not, that the domestic producers were selling copper abroad for less than they received here during the N. R. A. period?

Mr. STANNARD. That is generally true; some of them were, at least.

The CHAIRMAN. Of course, there may have been some difference between the two, the N. R. A. was definitely an effort to adjust production to consumption, was it not?

Mr. STANNARD. That was the general idea, yes.

[1] Appendix, p. 13394.

The CHAIRMAN. And was there any such purpose or action with respect to Copper Exporters, Inc., or the previous organization?

Mr. STANNARD. I think they were a little bit different in their inception. There probably was some effort made to adjust production to consumption, but I am not particularly familiar with that period because I did not come to New York until 1930, and had practically nothing to do personally with Copper Exporters in any of its periods of operation.

The CHAIRMAN. In both situations, therefore, the industry, sometimes without the cooperation of Government, and sometimes with the cooperation of and approval of Government, in order to maintain price, was at least experimenting with the effectiveness of production control, that is to say curtailment of production.

Mr. STANNARD. That is probably true.

Mr. SCOLL. Continuing a little on the Senator's point, the purpose of the system of sales quotas was to restrict production, was it not?

Mr. STANNARD. In a way it was. On the other hand, when you had the control put on sales quotas, each one could produce whatever tonnage he cared to produce.

Mr. SCOLL. But he couldn't sell any more than the quota.

Mr. STANNARD. He couldn't sell any more in the domestic market than his sales quota.

Mr. SCOLL. Did the adoption of the plan involve a curtailment at that time of production by any of the producers?

Mr. STANNARD. I cannot say definitely, Mr. Scoll. I think that production was gradually curtailed, at least by some of the participants.

Senator KING. That was true of agricultural products, wasn't it? Sugar and rice and wheat and corn and agricultural commodities were restricted. That is, there were restrictions placed upon production and restrictions now have been placed upon production, particularly sugar and some other agricultural commodities, isn't that true?

Mr. STANNARD. That is true.

Mr. SCOLL. Was such curtailment reflected in the reduction of employment, do you know?

Mr. STANNARD. It was to a certain degree, yes.

Mr. SCOLL. What percentage of capacity were the United States producers operating on at the time the code was approved, if you recall?

Mr. STANNARD. Our own operations ran on about a 30 percent basis, and the operations generally were probably on about a 40- to 45 percent basis. Some properties were shut down entirely.

Mr. SCOLL. You referred to curtailment taken by some of the producers after the code went into effect. Was it true also that certain producers voluntarily gave up their sales quotas during N. R. A.?

Mr. STANNARD. It was.

Mr. SCOLL. And was that incident to their curtailment?

Mr. STANNARD. There were periods when there was only a small demand for copper. For example, in the months of July, August, and September 1934, the total sales of copper under the code amounted to a total of only 18,000 tons of copper, or an average of 6,000 tons a month. In these periods when there was no market for copper, some of us curtailed our operations, and at the same time gave priority to custom smelters because under the code whenever any member of the code (producer or custom smelter) had accumulated an amount of

copper equal to 1 month's supply, he had the right to withdraw from the code, unless his position was taken care of. So working in cooperation with the Deputy Administrator, most of the producers in those circumstances waived their sales allocation and gave priority to the custom smelters.

Mr. STANNARD. That is correct.

Mr. SCOLL. What was the purpose of that meeting?

Mr. STANNARD. Shortly before the meeting there was introduced in the Senate, bill No. 2445, which covered an extension of the N. R. A. The copper industry was very much worried when that bill was introduced, as we were against the continuation of the N. R. A. code beyond June 1935. Mr. Petermann, who was acting as counsel for the code authority in New York, discussed the matter here in Washington with certain people in Congress, and told them how we all felt about the continuation of the N. R. A. They asked him, "What would the industry like to do?" Mr. Petermann came back to New York; we had informal discussions, and it was finally agreed that if we had to have anything after the N. R. A. expired we would prefer to operate under some act like the Capper-Volstead Act.[1] Mr. Kelley mentioned that act in his testimony yesterday. It would give us the right to have voluntary cooperation.

Mr. SCOLL. In other words, if you had to have any law you preferred to have a Capper-Volstead Act substituting the authority of the Attorney General for the authority of the Secretary of Agriculture?

Mr. O'CONNELL. You said if you had to have anything. Did you prefer to have nothing?

Mr. STANNARD. We preferred to have nothing to an N. R. A. extension.

Mr. O'CONNELL. Did you prefer to have nothing to the Capper-Volstead Act?

Mr. STANNARD. I think it might have been a good thing had we had the right to get together and talk over production and sales matters, which right we would have had under the Capper-Volstead Act; but speaking frankly, I doubt very much, even though we had that right, that the copper industry could agree any better than we did in meetings in 1930, '31, '32, and in the copper code days.

The CHAIRMAN. In other words, that would not have been effective either for your purpose?

Mr. STANNARD. It would not have been effective. It was just the right to do something but I cannot believe that, practically, it would have been of any great use to us.

The CHAIRMAN. There is a problem, is there not?

Mr. STANNARD. There is a problem.

The CHAIRMAN. And it still is with us.

Mr. STANNARD. It still is with us.

The CHAIRMAN. And the copper industry is still facing it?

Mr. STANNARD. The copper industry is facing it, yes.

The CHAIRMAN. Have you any suggestions as to how you could best meet it?

Mr. STANNARD. Senator, it is a very complex problem and I must say that I haven't any suggestions. Differences in the copper industry as to grade of ore, and weather and other conditions are so

[1] See infra, p. 13579 et seq., for text of Capper-Volstead Act.

great that I do not know how you could work out anything that could apply generally.

The CHAIRMAN. You feel that the industry ought to be free to consult with respect to rpice?

Mr. STANNARD. I think we ought to be free to consult in respect to production.

The CHAIRMAN. Am I to interpret that as being a negative answer to my question?

Mr. STANNARD. I personally would be very much opposed to any fixed price for copper.

The CHAIRMAN. Of course, that is not an answer, either. My question was, do you believe that the industry ought to be permitted to consult with respect to price?

Mr. STANNARD. I think it should be permitted to consult with respect to price when the price gets down to very subnormal levels. For example, if we should get back to a time when the price of copper is down to 7 cents a pound or as low as 5 cents a pound where it was in January and February 1933, I certainly think we ought to have the right to get together in a meeting and discuss a plan of cooperation without fear of violating any laws.

The CHAIRMAN. In other words, you feel that there should be no occasion to feel that the anti-trust laws would prevent consultation of that kind?

Mr. STANNARD. Not when we are in a position of very subnormal prices such as we were in during 1931, '32, and '33.

The CHAIRMAN. How would we determine when the period of subnormal prices arrives so that such consultation could properly take place?

Mr. STANNARD. I have given that matter a great deal of thought and must say that I have no way of knowing now when that time would arrive. In other words, I have no idea now whether that price should be 7 cents or 6 cents or 5 cents or 10 cents.

The CHAIRMAN. Now then, you were quite definite in expressing the opinion that the industry should be permitted to consult with respect to production.

Mr. STANNARD. Yes, I think we should, particularly when we get in these bad periods.

The CHAIRMAN. That means that you believe that the industry ought to have the right to curtail production.

Mr. STANNARD. That is right.

I think we ought to have the right to curtail production, to bring it in line with consumption, because you cannot go on permanently producing much more than you consume.

The CHAIRMAN. Do you believe that consultation with respect to production upon the one hand and price upon the other should be carried on without the concurrence of somebody acting upon behalf of the general public?

Mr. STANNARD. I think the general public should be consulted and should be in on these conferences.

The CHAIRMAN. And is there any way of doing that except through Government?

Mr. STANNARD. I do not know of any way, no.

Senator KING. A bill was offered in the Senate and referred later by the President to the Department of Justice, I think it was in

1933—it was at the time when they were trying to prolong the life of the expiring N. R. A.—under the terms of which any industry could confer with the Federal Trade Commission, and put all their cards, using a common expression, upon the table, the Federal Trade Commission make a thorough and searching investigation of the industry, and then if it found a situation to exist that threatened the industry, and particularly threatened employment—would cause unemployment—that it could promulgate some rule under the terms of which there would be some sort of union for the protection of the industry and for the purpose of protecting the employees and the consuming public. Were you familiar with that bill?

Mr. Stannard. I was not familiar with it, Senator.

Mr. Scoll. I would like to offer at this time the minutes of the meeting of the Copper Industry on April 16, 1935, and draft of a letter which was prepared and considered at that meeting, the letter being addressed to the Senate Finance Committee.

The Chairman. The exhibit may be received.

(The minutes and letter referred to were marked "Exhibit No. 2155" and are included in the appendix on p. 13526.)

INTERNATIONAL AGREEMENT ON PRODUCTION CONTROL, 1935–1939

Mr. Scoll. Now, Mr. Stannard, I would like to have you discuss with the committee the international agreement on production control from 1935 to 1939, and I shall ask you some questions about it. Do you recall the break-up of the last international meeting of producers in New York in December 1932?

Mr. Stannard. I do.

Mr. Scoll. At that time there was practically unanimous opinion that no agreement was possible.

Mr. Stannard. That is correct.

Mr. Scoll. Subsequently, efforts were made, I believe in 1933 and '34, to get together on foreign production control, and when I say "get together," I mean that Anaconda and Kennecott with their South American mines made such efforts. Is that correct?

Mr. Stannard. I do not recall, Mr. Scoll, that there were any particular efforts in 1933, or the early part of 1934. The N. R. A. came in in 1933; we were all very busy with it and I do not recall that there were any efforts made in 1933 on the part of Anaconda or Kennecott, or their foreign subsidiaries, to get together with the foreign producers.

Mr. Scoll. When did the discussions leading to the agreement of '35 first begin?

Mr. Stannard. The first I heard of the ideas of the Europeans was about the middle of December 1934.

Mr. Scoll. Who initiated the discussions?

Mr. Stannard. The people in Europe.

Mr. Scoll. What was the substance of their proposition?

Mr. Stannard. Some time about the middle of December 1934, one of the Rhodesians called me on the phone from London. He wanted to know how we would feel about another meeting to discuss cooperation. He said that they would come to New York, or preferably if Mr. Kelley and I would come to London, they would like that better.

Mr. Scoll. May I break in to ask you a question? Were they one of those who helped to break up the '32 meeting?

Mr. STANNARD. This was Mr. Storke, who was the managing director of the Roan Antelope Copper Company.

Mr. SCOLL. Have you any idea what changed their mind?

Mr. STANNARD. A good many things happened after 1931 and 1932. At that time the Rhodesians were just coming into production. By 1934, they had fairly well established their productive capacity, and the Canadian production of copper was increasing very, very rapidly. Going back to 1930, we never worried much about the Canadian production of copper, but due to the discovery of new ore bodies and the development of new properties, particularly Noranda and Hudson Bay, the Canadian menace became very real.

Mr. SCOLL. So that generally speaking, the world producers were beginning to get nervous about the production.

Mr. STANNARD. They were getting very nervous, and particularly about the Canadian production.

Mr. SCOLL. And Mr. Storke called you as representative of the Braden Copper Company?

Mr. STANNARD. He called me as representative of the Braden Copper Company having production in Chile.

Mr. SCOLL. And Anaconda participated insofar as its Chilean operations were concerned?

Mr. STANNARD. I think I ought to go on and tell you a little bit more about these various telephone conversations. I told Mr. Storke in our conversation in December that I didn't think it was any use to talk about a further conference unless the Rhodesians themselves could first agree as to a policy and then in turn reach an accord with the Katanga Company, which is the Belgian Congo producer. I said we had had meetings in previous years, in '31 and '32; and had never been able to agree on anything, and, therefore, I wasn't interested in another conference until they could compose their differences.

They went ahead with their conferences in January, and in February I suppose I had three or more conversations with Mr. Storke and Mr Taylor. They told me they had been having meetings with Katanga, and were gradually getting their differences composed. Finally, in the latter part of February, they telephoned me and said they had their differences with Katanga composed and were coming to New York for a meeting to discuss the whole copper situation.

Mr. SCOLL. And the discussions in New York in contrast to those in 1932, I take it, were somewhat more harmonious.

Mr. STANNARD. They were much more harmonious because the number of people involved in the conferences was reduced to only a quarter of the number involved in earlier conferences, and because the Rhodesians and the Belgians for the first time were in accord.

Mr. SCOLL. Were there any discussions in these meetings regarding the possible effect of United States exports on the control scheme?

Mr. STANNARD. There was very little discussion. One of the Rhodesians, I think it was Mr. Storke, asked me what Kennecott's position would be in reference to exports. He was, I think, particularly concerned about Kennecott because we were the largest United States producer and at that time our properties were not being operated at capacity. I told him in view of the tariff that had been put on copper coming into the United States, our obligation to the domestic market and the fact that our stocks of copper had been reduced to a

reasonable level, that our general policy probably would be not to export very much copper in the near future.

Mr. SCOLL. According to the accounts published in the newspapers describing these meetings, there was an understanding that United States exports by the members of the international control agreement would be kept to approximately 9,000 tons a month. Was there such an understanding, or any similar understanding?

Mr. STANNARD. There was not. I have told you about my conversation with Mr. Storke as to our general export policy. One reason we arrived at that policy was because we were afraid that if we exported a lot of copper, the Canadians and the Rhodesians would have a duty put on copper going into England. In other words, they would put a tariff wall around England. If they should do that, we felt that the Belgians and France would next make a tariff arrangement which would practically exclude American and all other copper, except Belgian, from France, and we would thereby build up an impossible situation in the copper world.

Mr. SCOLL. So that the foreigners requested no assurances of any kind that the Americans would not use their American production for export abroad.

Mr. STANNARD. No; Mr. Scoll, they didn't—there was no agreement or assurance. I think the only company they put the question to very definitely was Kennecott, and I have told you why we decided not to run the risk of an English tariff by exporting too much copper.

England at that time was in a position to get all of its copper requirements from Canada and Rhodesia. Katanga could supply the French market. With an American tariff and the export of copper to England, the danger of a tariff there was very real, and had it been put into effect there would have been one more obstacle in the way of the development of the American copper industry.

Mr. PIKE. Didn't England put on a sort of optional tariff which they had never used at that time?

Mr. STANNARD. We have offices in London, Berlin, Paris, and Italy. We got word from our office in London that there was a very strong sentiment there to put on a tariff to keep out American copper, in fact everything but colonial copper. I think the Board of Trade did have right to put on a small tariff had they so elected, but it was never done.

Mr. SCOLL. One further question. Do you have any idea as to how these rumors arose about the limit of 9,000 tons on exports?

Mr. STANNARD. The Rhodesians may have talked with other people about exports. They were a bit concerned, but not very much. Their main concern was about Kennecott, because we were the largest American producer. I do not believe they gave much thought to the smaller producers.

Mr. SCOLL. Do you recall who finally agreed to participate?

Mr. STANNARD. In the cooperative arrangement?

Mr. SCOLL. In the cooperative arrangement.

Mr. STANNARD. There were really only five groups, and I want to say right here that Kennecott Copper Corporation as such did not participate in this cooperating group, nor did Anaconda. Subsidiaries of Anaconda operating in Chile (and Mexico) and a subsidiary of Kennecott, the Braden Copper Co., operating in Chile, participated.

Mr. SCOLL. That was you and Mr. Kelley.

Mr. STANNARD. Mr. Kelley and myself, and the Roan Antelope Copper Co., and the Mufulira Copper Co. represented by Mr. Storke; Rhokana, represented by Mr. Taylor, and during a part of our conferences, Mr. Preston represented Rio Tinto and Mr. Belanger represented Bor.

Mr. SCOLL. Did you mention Katanga?

Mr. STANNARD. Mr. Pisart first represented Katanga, and then he was joined by Mr. Sengier.

Mr. SCOLL. Those parties were the signatories to the final agreement?

Mr. STANNARD. Those parties were signatories to the final understanding.

Mr. SCOLL. I would like to introduce for the record at this time a table showing the share of foreign production of copper controlled by participants in the international agreement, 1935 to 1938. I believe you have seen a copy of this, have you not? For purposes of the record, this table was prepared by staff members of the T. N. E. C. from figures that were obtained from the American Bureau of Metal Statistics. It briefly shows that in 1935 the members of the agreement controlled 50 percent of the total foreign production. In 1936, this had dropped to 46 percent. It rose to 53 percent in 1937, and in 1938 it was 48 percent. It also shows that if production of Russia were excluded, in '35, the members would control 53 percent of production; in '36, 50.3 percent, and in 1937, 56.5 percent, and it dropped in 1938 to 52 percent. The reason for setting that tabulation up separately is that it is generally understood that Russian production was consumed in Russia. Is that correct?

Mr. STANNARD. That is correct, but I do not think, Mr. Scoll, that that is quite a fair tabulation. You have put into the cooperating group the production of Rio Tinto and Bor. As a matter of fact, Rio Tinto had a quota of 3,100 tons a month assigned to it which was far in excess of its productive capacity. Mr. Preston told me that they had not produced more than 2,100 or 2,200 tons per month, and that is what they would keep on producing.

(The table referred to was marked "Exhibit No. 2156" and is included in the appendix on p. 13528.)

Mr. SCOLL. May I interrupt. I think we are in complete agreement. The purpose of introducing this is to show that the international production control members only controlled about half or a little less than half of the world production.

Mr. STANNARD. I agree with you on that, but if you put in Russia and Japanese production, we figure it controlled considerably under 50 percent of the production outside of the United States. My figures are 46 percent.

The CHAIRMAN. Let's get this cleared up, please, Mr. Scoll.

Mr. SCOLL. The disagreement, Senator, involves a few percent, depending upon whether or not Russia and Japan should be included in the total, and I think for our purposes, we are perfectly willing to concede that the percentage may have varied somwhat from the figures shown on the table.

The CHAIRMAN. This table does not include Russia and Japan

Mr. SCOLL. The table includes Russia under one figure of 50 percent in 1935, which I read. and also Japan. Then in another figure we

have shown the percentage of '35 as 53 percent, an increase of 3 percent, by excluding Russia.

Now, the Committee can take either one of those figures.

The CHAIRMAN. Are both figures on the table?

Mr. SCOLL. Both are on the table. Japan is also included.

The CHAIRMAN. The members of this international group controlled how much of world production, excluding Russia and Japan?

Mr. SCOLL. We are talking only of foreign production.

The CHAIRMAN. All right, of foreign production; how much?

Mr. SCOLL. If we excluded Russia, and included Japan, it would be 53 percent.

The CHAIRMAN. Is that your understanding, Mr. Stannard?

Mr. STANNARD. That is what we actually produced, you mean, Mr. Scoll.

Mr. SCOLL. That is production; that is not sales.

Mr. STANNARD. That would be approximately correct.

The CHAIRMAN. Now, then, what would be the figure, including Russia?

Mr. SCOLL. If we included Russia, the figure would be 50 percent, and I should state that we are talking now about 1935, when the agreement was made.

The CHAIRMAN. Is that your understanding, Mr. Stannard?

Mr. STANNARD. Fairly close to that. I haven's any real disagreement with these percentages.

The CHAIRMAN. That clears up the apparent disagreement, does it?

Mr. SCOLL. I would like to read to the committee a very brief excerpt from the Memorandum of Provisions Covering Curtailment and Production Control of African, South American, and European Producers, dated March 28, 1935. That is the memorandum of an agreement that was adopted by the members, was it not?

Mr. STANNARD. That is correct.

Mr. SCOLL. The first paragraph:

> Recital: The purpose of the above mentioned producers in participating in this memorandum is to bring about better conditions in the production, distribution and marketing of copper, throughout the world outside of the United States, and it is specifically provided that none of the terms hereof shall apply to the United States.

I would like to offer as the next exhibit this memorandum from which I have just quoted.

The CHAIRMAN. It may be received.

(The memorandum referred to was marked "Exhibit No. 2157" and is included in the appendix on p. 13528.)

Mr. SCOLL. A quota system was used, I believe, to allot the curtailment among various members, was it not?

Mr. STANNARD. It was.

Mr. SCOLL. And basic tonnage quotas were set up for each participant.

Mr. STANNARD. That is correct.

Mr. SCOLL. The agreement provided, did it not, that the sales should be made as far as possible to consumers only.

Mr. STANNARD. That is correct.

The CHAIRMAN. To what agreement are you referring?

Mr. SCOLL. The agreement that has just been introduced in the record, "Exhibit No. 2157."

The CHAIRMAN. My attention was diverted when you were discussing this agreement. Was it identified by the witness?

Mr. STANNARD. It was.

The CHAIRMAN. By whom was it prepared, Mr. Stannard?

Mr. STANNARD. It was prepared in our office in New York—that is—mimeographing of it was done there. During the month of March 1935—we had I would imagine 10 or 12 meetings—and this was the final understanding of what we agreed upon.

The CHAIRMAN. And has the agreement been introduced in evidence here in the form in which it was prepared in your office?

Mr. STANNARD. It has been, exactly.

The CHAIRMAN. And the title of this memorandum was prepared in your office was it? Have you seen the title?

Mr. STANNARD. It was the title that was agreed to by all the participants at the meeting.

The CHAIRMAN. And that title is "Memorandum of Provisions Covering Curtailment and Production Control of African, South American, and European Producers"?

Mr. STANNARD. That is correct and that is all that it covered.

The CHAIRMAN. I notice in the first paragraph which is entitled "Recital," it is stated as follows "and it is specifically provided that none of the terms hereof shall apply to the United States." Why was that phrase put in?

Mr. STANNARD. Because this covered production outside of the United States; it had no reference whatsoever to production within the United States. As far as Kennecott was concerned, it was our Braden property in Chile that participated in this understanding and it referred only to Chilean production. The same applied to the Chile Copper Co., Andes, and Greene Cananea, whose properties are in Chile and in Mexico—all are subsidiaries of Anaconda.

The CHAIRMAN. Would it be proper to say that you were making it clear that you were not doing anything with respect to production control in the United States that might be condemned by the Sherman antitrust law?

Mr. STANNARD. That is correct. And I would like to point out away from any price control; each of the participants kept its own selling agency in Europe, and there was the same competition as before in keeping outlets.

The CHAIRMAN. In other words, you were careful to confine this agreement to the regulation of production and not to the control of price?

Mr. STANNARD. That is true.

The CHAIRMAN. Of course, the regulation of production would necessarily affect the price, would it not?

Mr. STANNARD. Perhaps slightly. When we started these discussions copper in Europe was selling at say 6.7 cents per pound. It was the first time we had assembled a group of producers whose ores were devoid of precious metals. In other words, we were simply copper producers and had as common competitors in the market abroad all of the Canadian production, Peruvian production and various other production containing lots of precious metal values to help pay the cost of operation. Being in about the same cost bracket, it was a rather logical set-up. We hoped through arriving at a common understanding that we would avoid additional plant installations

because if one party increased its plants—put in more capital—then the others would have to follow and we would finally come down to a price of copper abroad which would be ruinous to all of us; these five main participants probably had in the neighborhood of half a billion dollars tied up in their copper investments in Rhodesia, Africa, and Chile.

The CHAIRMAN. In other words, the purpose was to affect the price?

Mr. STANNARD. It was not to affect the price upward, it was——

The CHAIRMAN (interposing). To prevent a disastrous decline?

Mr. STANNARD. That's it exactly. There is quite a distinction.

The CHAIRMAN. In other words, the distinction that you are trying to make to the committee is that the purpose of this agreement was to save the industry and not to exploit the consumer.

Mr. STANNARD. That is exactly correct.

The CHAIRMAN. Well now, did it have the effect to raise the price?

Mr. STANNARD. It happened that this agreement became partially effective in May 1935, and fully effective in June 1935. The N. R. A. ended at the end of May 1935 and business picked up very decidedly in this country beginning about the 10th of July 1935. From that time on there was an ascending cycle of business here which undoubtedly had its effect on the copper markets outside of the United States because automatically as business got better here exports stopped going to Europe and that meant less copper on the European market. At that same time a cycle of business improvement started in Europe; and generally speaking, that cycle, insofar as concerns copper, continued right along through 1936, 1937, 1938, and 1939. In other words, due to preparations for war, the consumption of copper abroad increased continuously, you might say, during that period, and even though we had not had this understanding as regards production, I believe the trend of prices would have been exactly the same.

The CHAIRMAN. What was the attitude of the foreign producers who entered this agreement with respect to the exclusion of United States properties from its terms?

Mr. STANNARD. I don't just get your point.

The CHAIRMAN. Well, you invited European producers to enter into a production and curtailment program.

Mr. STANNARD. We didn't invite the European producers; they invited Mr. Kelley and myself and the interests we represented to join with them.

The CHAIRMAN. I see. All right, they invited you to come in, and then you wrote into this agreement the exclusion, the specific exclusion, of the United States. What was their attitude toward that provision?

Mr. STANNARD. In the meantime, Congress had put a 4-cent tariff on copper coming into the United States, and as a result of that tariff the copper world was divided into two parts, the ins and the outs, and the people who were in this agreement here——

The CHAIRMAN (interposing). Which were the ins and which were the outs?

Mr. STANNARD. I should say those inside the United States were the ins, so to speak. The rest of them were the outs. The people who participated in this cooperative agreement were people with

production entirely outside the United States; their copper couldn't come into this market and with the market in Europe more or less limited we had to meet the competition there, particularly of Canada, which worried all of us very much.

The CHAIRMAN. What I wanted to know is whether there was any objection upon the part of these European producers to this clause which you wrote into the preliminary recital: "It is specifically provided that none of the terms hereof shall apply to the United States."

Mr. STANNARD. There was no objection on the part of the Rhodesian or Belgian producers.

The CHAIRMAN. They were not concerned, then, about the effect of American production upon the foreign market?

Mr. STANNARD. They were not particularly concerned about it, Senator. As I stated, they asked as to Kennecott's position respecting exports to the foreign market, and I told them that our stocks of copper here were already fairly well reduced, and as a general principle we would not export much copper to the European market. As I told you, our decision in that matter was largely determined by our fear that there would be a tariff put on copper in England, which would exclude all American copper as well as South American copper, following which France would give preference to Belgian copper and our operations everywhere would be greatly harmed by such developments.

The CHAIRMAN. Was I mistaken in getting the impression that American production—by that I mean the United States production—was or has been about equal to American demand?

Mr. STANNARD. It has varied a great deal. At the bottom of the depression the actual consumption of copper within the United States got down to a low of about 18,000 tons per month. At the peak of the business rise in 1937, which I think was in March, the consumption of copper rose to eighty-seven thousand-odd tons. From a top of 87,000 to a bottom of 18,000 tons per month is a wide variation. The total productive capacity of the United States is about 90,000 tons per month, I would say. The average consumption of copper within the United States over the past 4 or 5 years has probably been around fifty-five to sixty thousand tons per month. Therefore on the average, the consumption of copper in the United States has represented about 60 to 65 percent of the productive capacity of the United States.

The CHAIRMAN. Now, there was an active demand from the copper-producing States, notably Arizona and Montana, for this excise tax, was there not?

Mr. STANNARD. There was.

The CHAIRMAN. And that was promoted, I presume, by a fear that foreign copper—that is, copper produced by the outs—would take our domestic market to the disadvantage of the mines in the United States, or at least of the miners.

Mr. STANNARD. That is true.

The CHAIRMAN. And what was the attitude of the producing companies with respect to the tariff?

Mr. STANNARD. Kennecott took no position.

The CHAIRMAN. It was neutral also, as Mr. Kelley said?

Mr. STANNARD. We were neutral also.

The CHAIRMAN. As a matter of fact, the tariff was promoted rather by the laborers, the miners, than by the producing companies, was it not?

Mr. STANNARD. I think it was promoted by both the producing companies and the miners.

Mr. SCOLL. Certain producing companies?

Mr. STANNARD. Certain producing companies.

The CHAIRMAN. Were Anaconda and Kennecott occupying neutral positions?

Mr. STANNARD. There may have been one or two others, perhaps, who were more or less neutral. I am not sure about it, because we didn't participate in any of those meetings.

The CHAIRMAN. Would it be proper to infer that the neutrals were those who had foreign properties?

Mr. STANNARD. We both did have foreign properties; yes.

The CHAIRMAN. That inference would be substantially correct, would it not?

Mr. STANNARD. Yes; I think it would be.

Mr. SCOLL. Generally speaking, to continue the line of discussion on one further point, the effect on prices of a tariff imposed by the Government is just about the same as a production control put on by the industry, isn't it?

Mr. STANNARD. No; I do not think it is the same thing at all.

Mr. SCOLL. It produces the same effect.

Mr. STANNARD. No, I don't think that is true, Mr. Scoll.

Dr. LUBIN. Mr. Scoll, may I ask Mr. Stannard one question? There was nothing in this agreement to prevent any foreign producer from selling all the copper he wanted to in the United States if he could sell it over the tariff and still come out?

Mr. STANNARD. Absolutely not. There was no restriction on any of the participants in this agreement, there was no allocation of territory, there was no price control; we could sell any place in the world we wanted to sell.

Dr. LUBIN. Well, copper mining is what one might characterize a decreasing cost industry, in the sense if you operate at 50 percent your unit cost is much higher than if you operate at 70, 80, or 90 percent.

Mr. STANNARD. It is somewhat higher; it varies a great deal with different properties.

Dr. LUBIN. But in terms of your unit cost, would the unit cost tend to go down as you get closer, well, let's say as you get farther and farther away from 40 to 50 percent capacity?

Mr. STANNARD. Yes, the costs go down when you get above 50 percent and they go up when you produce under 50 percent.

Dr. LUBIN. So that in reality, then, by limiting the output of these competitive mines abroad you in a sense fixed their costs or at least their costs from going down, which in a sense made it less profitable for them to try to sell copper in the United States, didn't it?

Mr. STANNARD. With a tariff wall of 4 cents per pound they could not have sold copper in the United States; it would have been a losing proposition for them.

Dr. LUBIN. You don't think that any of those people, if they were operating at maximum efficiency at the point of lowest cost, could get over that tariff wall?

Mr. STANNARD. I would not think so.

Mr. SCOLL. As a matter of fact, Mr. Stannard, didn't the control committee at its meeting on July 15, 1935, agree that it would exchange information with a view to avoiding price cutting?

Mr. Stannard. They had one meeting abroad and it was agreed that they would exchange information. But, as a matter of fact, practically nothing was done in the way of any agreement as to prices. There were two or three producers of best select copper, and I think, they agreed—Mr. Ulrich representing our company—that they would make a price differential of 5 shillings or 10 shillings on certain shapes. That was the only thing done, and it was not in reference to copper as a whole.

Mr. Scoll. Have you got the minutes of that meeting before you?

Mr. Stannard. I have the minutes before me, Mr. Scoll.

Mr. Scoll. Well, you notice on page 2 of the minutes it states (paragraph 8):

> It was agreed that the representatives of the various producers shall cooperate by exchanging information with a view to avoiding price cutting.

Mr. Stannard. I see that.

Mr. Scoll. What did that have reference to?

Mr. Stannard. At that time it was thought advisable to have the sales representatives of the different companies in Europe report their sales to a common agency. Sales were reported to an office in Brussels and that office in turn cabled daily to the office in New York stating the tonnage sold during the day and the price at which it was sold.

Mr. Scoll. This meeting July 15 took place after the break-up of the N. R. A.?

Mr. Stannard. That took place after the break-up.

Mr. Scoll. Was there any concern among the members that the N. R. A. break-up might result in price cutting and interfere with the operation?

Mr. Stannard. I do not believe there was any concern about it. I think the American representatives at that meeting thought the break-up of N. R. A. was going to be a good thing for industry generally in the United States.

Mr. Scoll. I would like to introduce into the record at this time a copy of the minutes of the meeting held at London, July 15, 1935.

The Chairman. The exhibit may be received.

(The minutes referred to were marked "Exhibit No. 2158" and are included in the appendix on p. 13533.)

The Chairman. Mr. Scoll, it is now afternoon, the roll has just been called in the Senate. Would this be a satisfactory place to recess until 2 o'clock this afternoon?

Mr. Scoll. Yes, sir.

The Chairman. The committee will stand in recess until 2 o'clock this afternoon.

(Whereupon, at 12:10 p. m. the committee recessed until 2 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:15 p. m. upon expiration of the recess.

The Chairman. The committee will come to order, please.

Mr. Scoll, are you ready to proceed?

Mr. Scoll. Yes, sir.

The Chairman. Before you proceed, the chairman is going to take the liberty of putting in the record the Capper-Volstead Act, to which reference has been made from time to time during the hearings. Mr.

Kelley referred to it yesterday and Mr. Stannard referred to it today. Inasmuch as this was an act to authorize certain producers of agricultural products to form associations, and inasmuch as the suggestion has been made that similar permissions should be extended to the producers of industrial products, and inasmuch as it deals with the subject matter of this committee's study, it occurred to the chairman that it would be of interest to all members of the committee and to all who read the record.

The Capper-Volstead Act was approved February 18, 1922. It is a short act, perhaps it might be appropriate to read it.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce, such products of persons so engaged. Such associations may have marketing agencies in common; and such associations and their members may make the necessary contracts and agreements to effect such purposes: Provided however, That such associations are operated for the mutual benefit of the members thereof, as such producers, and conform to one or both of the following requirements:

First. That no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein, or,

Second. That the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum.

And in any case to the following:

Third. That the association shall not deal in the products of non-members to an amount greater in value than such as are handled by it for members.

Sec. 2. That if the Secretary of Agriculture shall have reason to believe that any such association monopolizes or restrains trade in interstate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced by reason thereof, he shall serve upon such association a complaint stating his charge in that respect, to which complaint shall be attached, or contained therein, a notice of hearing, specifying a day and place not less than thirty days after the service thereof, requiring the association to show cause why an order should not be made directing it to cease and desist from monopolization or restraint of trade. An association so complained of may at the time and place so fixed show cause why such order should not be entered. The evidence given on such a hearing shall be taken under such rules and regulations as the Secretary of Agriculture may prescribe, reduced to writing, and made a part of the record therein. If upon such hearing the Secretary of Agriculture shall be of the opinion that such association monopolizes or restrains trade in interestate or foreign commerce to such an extent that the price of any agricultural product is unduly enhanced thereby, he shall issue and cause to be served upon the association an order reciting the facts found by him, directing such association to cease and desist from monopolization or restraint of trade. On the request of such association or if such association fails or neglects for thirty days to obey such order, the Secretary of Agriculture shall file in the district court in the judicial district in which such association has its principal place of business a certified copy of the order and of all the records in the proceeding, together with a petition asking that the order be enforced, and shall give notice to the Attorney General and to said association of such filing. Such district court shall thereupon have jurisdiction to enter a decree affirming, modifying, or setting aside said order, or enter such other decree as the court may deem equitable, and may make rules as to pleadings and proceedings to be had in considering such order. The place of trial may, for cause or by consent of parties, be changed as in other causes.

The facts found by the Secretary of Agriculture and recited or set forth in said order shall be prima facie evidence of such facts, but either party may adduce additional evidence. The Department of Justice shall have charge of the enforcement of such order. After the order is so filed in such district court and while pending for review therein the court may issue a temporary writ of injunction forbidding such association from violating such order or any part thereof. The court may, upon conclusion of its hearing, enforce its decree by a permanent

njunction or other appropriate remedy. Service of such complaint and of all notices may be made upon such association by service upon any officer or agent thereof engaged in carrying on its business, or on any attorney authorized to appear in such proceeding for such association, and such service shall be binding upon such association, the officers, and members thereof.

The CHAIRMAN. This bill, which was finally passed, was the House bill. A report was submitted on that bill from the Committee on the Judiciary in the House of Representatives on April 26, 1921, by Congressman Volstead. It was report No. 24 (Sixty-seventh Cong., 1st. sess.). The report also is a short one and I shall ask that that also be incorporated in the record but I won't undertake to read it.[1]

The bill was reported in the Senate by Senator Walsh of Montana.

Also from the Committee on the Judiciary of the Senate, this is report No. 236 of the first session of the Sixty-seventh Congress. I shall also ask that this brief report be printed in the record.[2]

I may call attention to what would seem to me to be very interesting paragraphs of this report [reading]:

Inasmuch as it is utterly impossible to establish a monopoly of any of the ordinary farm products, cereals, cotton, livestock, etc., an inhibition of monopoly must be unobjectionable to the producers of such. Moreover, your committee is entirely satisfied that they have no desire or purpose to establish a monopoly. Why anyone should insist under these circumstances, on the enactment of a law which, in terms, would authorize them to do so, your committee finds it impossible to understand.

This remark of the report was in support of an amendment added to the bill in the Senate to forbid monopoly.

Then there was a second paragraph which is of interest when one takes into consideration various milk organizations [reading further]:

It is possible, however, to establish a monopoly with respect to farm products which can be produced profitably only in a very limited area, or in the case of highly perishable products, like milk, which will not stand shipment long distances. It would not be in the public interest, your committee believes, to permit all producers of milk within the area from which one of our great cities is supplied to effect a single organization having thus a monopoly which might or might not be utilized to exact extortionate prices of consumers. Your committee sees no good reason why two, three, a half dozen, or a dozen cooperative associations might not properly be organized for the purpose of supplying a city with its milk, nor why, in the case of raisins, for instance, produced only within a limited area in the State of California, a monopolistic organization should be permitted and encouraged, rather than two or three cooperative associations organized and operating on similar lines.

I ask the pardon of the committee for taking the time, but I rather imagine that the law and these two reports will be of great interest to all who are following these hearings.

Mr. SCOLL. At this time, Senator, I should like to file with the committee certain tables which were received from the Copper Institute too late to be analyzed in the form of a chart. These tables are "Blister Output—1937, by all U. S. Smelters," and "Refinery Output—1937, by all U. S. Refineries," and "Sales During 1937 of Refined Copper Produced or Treated in U. S. A."

I would like to have those filed, not introduced into the record.

The CHAIRMAN. They will be so ordered.

Mr. SCOLL. Mr. Stannard, were any meetings of the control committee held after July 15, 1935, to your recollection?

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[1] See appendix, p. 13579.

[2] Ibid., p. 13581.

Mr. STANNARD. No, that was the only meeting ever held.

Mr. SCOLL. The agreement provided for the setting up of a statistical agency—was that ever undertaken?

Mr. STANNARD. Only in connection with Mr. Eckert. He was given figures relative to the monthly production of each member of the cooperative group, and in turn issued reports the middle and the end of each month informing all members as to the production of each member of the group and of the group as a whole.

Mr. SCOLL. Now, the agreement provided that quotas might be changed from time to time and they were so changed, were they not?

Mr. STANNARD. They were changed in the period of the original agreement which expired——

Mr. SCOLL (interposing). Excuse me, I won't ask you to go into the details.

Mr. STANNARD. Yes; they were changed.

Mr. SCOLL. I would like to introduce at this time a chart and supporting table showing "Foreign Copper Before and After the International Agreement of 1935, Monthly, 1933–39."

This chart and the tables were prepared by the staff of the T. E. N. C.; the source of the information is shown on the chart. Before introducing it, I might describe it briefly. It shows the prices, quotas, production, sales, and exports of the world producers, United States and foreign, under the agreement and prior to its adoption. The quotas shown on the chart are based on the supporting table. Briefly, if the committee will examine the curve shown thereon, it will see that the quotas were first increased about August 1936; that the price began to rise, and as the price continued to rise, the quotas were increased accordingly, and finally the quotas were removed entirely at the end of 1936, after which the price—and I am referring to the London price—rose to above 15 cents. I would like to offer this as an exhibit.

(Representative Williams, assumed the Chair.)

Acting Chairman WILLIAMS. This may be received.

(The chart and tables referred to were marked "Exhibit No. 2159" and are included in the appendix on p. 13534.)

Mr. SCOLL. Was there an understanding among the members to the production control agreement that quotas would be removed entirely if the London price reached a certain point?

Mr. STANNARD. It was the consensus of opinion that if the price went above, let us say, £45 for standard copper, all restrictions ought to be removed.

Mr. SCOLL. Now, was war buying a factor that the committee took into consideration in changing the quotas from time to time?

Mr. STANNARD. Yes; Europe was considerably affected by buying for munitions and military purposes.

Mr. SCOLL. Were any changes in the quotas based upon information which the members had of pending purchases by governments?

Mr. STANNARD. No, not that I ever heard of.

Mr. SCOLL. The changes were just made, then, in response to what the observed prices were on the London market?

Mr. STANNARD. Prices and consumption.

Mr. SCOLL. By "consumption" you mean——

Mr. STANNARD (interposing). Deliveries to customers.

Mr. Scoll. You said before that the committee did not meet after July 1935. How were the quotas changed after that date?

Mr. Stannard. If either Mr. Kelley or myself on this side, or any one of the three control members on the other side felt that the quota should be increased or decreased, he would get in touch with some other member of the group of five, usually by telephone, and would discuss the matter; the foreign members might have a meeting abroad and we have one here; usually we would be pretty much in agreement as to increasing or decreasing the quotas. Such matters were handled entirely by telephone.

Mr. Scoll. When the agreement expired in June—I believe the 30th, 1938—was it renewed?

Mr. Stannard. It was renewed, and at that time an additional quota was given to Rhokana.

(Senator O'Mahoney resumed the chair.)

Mr. Scoll. All of the participants were apparently pretty well satisfied with the way it worked, were they not?

Mr. Stannard. They were.

Mr. Scoll. Was the success of the agreement due in part to the improvement in the copper situation of 1935 to 1939?

Mr. Stannard. I do not think so; no.

We all felt that such an association was generally beneficial, but no one believed that this cooperative arrangement had been responsible for a great improvement in the copper business.

Mr. Scoll. That was not quite the point of my question. What I meant was, didn't the increased consumption of copper and the improved prices which copper brought in the world market have some bearing on the success of the arrangement?

Mr. Stannard. It had a very decided bearing on the success of it. If consumption had been downward instead of upward during that period of 3½ years the arrangement might have broken up in a short time.

Mr. Scoll. I would like to offer at this time a table entitled, "U. S. Exports of Duty Free Copper by Various Classes of Exporters, Monthly, 1935–39."

This was prepared by Mr. R. R. Eckert, secretary of the Copper Institute, for the committee at the request of members of the staff. I might explain the use of the term "duty free" as I understand it. What it covers is all domestic and refined copper, plus any previous imports of duty-free copper. That would include duty-free copper from Cuba, but no other copper from any other country.

The Chairman. The exhibit may be received.

(The table referred to was marked "Exhibit No. 2160" and is included in the appendix on p. 13537.)

Mr. Scoll. There is no comment that I wish to make about this table except to point out that Kennecott's exports, that is, exports of domestic copper, stopped in June 1935, and did not resume until August 1938, which bears out Mr. Stannard's statements.

The Chairman. Have you any comment, Mr. Stannard, on the chart?

Mr. Stannard. No. I have none.

Mr. Scoll. I believe I asked you before whether there were any discussions concerning the taking of steps that might be necessary to

prevent price cutting. Was there any cooperation by the members of this agreement during its existence to prevent price cutting?

Mr. STANNARD. I do not think so, Mr. Scoll, except as I explained this morning. In the case of fire-refined copper, there were only two producers and the question was whether the differential on fire-refined copper should be 20 or 25 points. That was of no consequence.

Mr. SCOLL. Was there any machinery set up to enforce the agreement?

Mr. STANNARD. Absolutely none.

Mr. SCOLL. It was purely voluntary?

Mr. STANNARD. Purely voluntary.

Mr. SCOLL. There was no trouble about it?

Mr. STANNARD. There was no trouble at all.

Mr. SCOLL. The agreement, as was noted before, provided for direct sales to consumers. The purpose of that of course was to eliminate sales to or through speculators and dealers?

Mr. STANNARD. That is correct.

Mr. SCOLL. And what steps were taken by the members to avoid copper from getting into the hands of specualtors and dealers?

Mr. STANNARD. We sold direct to the consumer.

Mr. SCOLL. Now how could you keep any one member from selling to a dealer if he wanted to?

Mr. STANNARD. Any member could have sold to a dealer had he wanted to, but the general thought was that the copper industry would be better off it kept away from speculation.

Mr. SCOLL. Now do all the foreigners agree on that proposition?

Mr. STANNARD. Generally speaking, yes. However, there is a lot of copper sold through the London Metal Exchange.

Mr. SCOLL. Which wasn't sold by members of the agreement?

Mr. STANNARD. Practically none of it was sold by members of the agreement. However, at one time in 1937, when the price of copper was getting out of hand, we ourselves sold about 5,000 tons on the London Metal Exchange with the idea of trying to break the fictitiously high price; that was the only time that we have sold copper on the London Metal Exchange in many years.

The CHAIRMAN. When you speak of speculation, Mr. Stannard, what do you mean?

Mr. STANNARD. I mean the buying of copper by people who are not directly users of copper. In this connection I was told that in the London boom of 1937 somewhere between 100,000 and 150,000 tons of copper were bought through the London Metal Exchange by amateur white-collar speculators. They were all speculating and that was one of the things that made it possible for the price of copper to get entirely out of hand in the London market.

The CHAIRMAN. Well, were these speculators amateur speculators or amateurs in the copper industry?

Mr. STANNARD. They were amateurs in the copper industry.

The CHAIRMAN. They might have been very highly professional speculators?

Mr. STANNARD. Some of them may have been. There were always professional speculators on the London Metal Exchange.

The CHAIRMAN. You are referring now to purchases and sales, probably, too, in copper by persons who are not connected with the industry?

Mr. STANNARD. Largely so.

The CHAIRMAN. Do people who are connected with the industry also speculate?

Mr. STANNARD. Some few do; it is not general, however.

The CHAIRMAN. What is the attitude of the industry toward speculation of this kind?

Mr. STANNARD. We disapprove of it and in New York, for example, the Commodity Exchange during N. R. A. days was practically put out of business as far as copper was concerned. After the N. R. A. expired it gradually came back into being again. It is my personal belief that speculation on the London Exchange and on the New York Commodity Exchange is probably responsible for much wider variations in the prices of commodities than if these exchanges did not exist. Take copper for example: If the fluctuation in copper is 4 cents per pound, or, let us say, between 12½ cents and 8½ cents, with the commodity exchanges, then without the commodity exchanges I think the fluctuation would be very much narrower. This would be a great help to consumers since it would lessen the inventory problem they have if they buy copper at 12 cents and it goes down to 8. They suffer great losses.

The CHAIRMAN. In your opinion, then, it would be a great benefit to the copper industry and to consumers of copper if the commodity exchanges could be prevented from speculating or permitting speculation in copper?

Mr. STANNARD. Generally speaking, yes.

Mr. SCOLL. Senator, we are going to discuss the function of the commodity exchange and prices on the exchange very shortly.

The CHAIRMAN. I am sorry; I am always jumping ahead of you.

Mr. SCOLL. Now in connection with the direct selling were you able to prevent some of the purchasers of copper from reselling to other purchasers or selling to dealers in times when it was profitable to do so?

Mr. STANNARD. We were not able entirely to stop that.

Mr. SCOLL. But you were able to stop it in part?

Mr. STANNARD. In part, yes.

Mr. SCOLL. Generally because you knew who your customers were and you knew what their requirements were?

Mr. STANNARD. That is true.

Mr. SCOLL. Now did the direct sales policy reduce the influence of the London Metal Exchange on the foreign price during the period of the agreement?

Mr. STANNARD. I think it did, yes, to a considerable extent.

Mr. SCOLL. Now conversely, what effect did the prices on the London Metal Exchange during 1935 to 1939 have on the prices which the members of the agreement received for their copper?

Mr. STANNARD. The speculation on the London Metal Exchange resulted in the members—well, in fact resulted in all copper producers receiving temporarily a much better price for their copper.

Mr. SCOLL. Did the trade-practice committee established by the agreement ever meet?

Mr. STANNARD. It had a meeting in July 1935.

Mr. SCOLL. According to article 6 of the agreement, provision was made for a study of the entire problem of cooperative marketing of copper? Was such a study prepared?

Mr. STANNARD. No; it was not.

Mr. Scoll. Have you anything prepared by the committee—trade-practice committee—on that question? I presume that if the trade-practice committee had prepared a report or made any recommendation on trade practices you would be familiar with it?

Mr. Stannard. I would be; yes.

Mr. Scoll. What happened to the international production control agreement on the outbreak of the war in September?

Mr. Stannard. It was understood that in the event of war the whole cooperative arrangement would be discontinued. In other words, since September 1 every member of the cooperating group has been free to produce at will.

Mr. Scoll. And the agreement is no longer in force in any particular?

Mr. Stannard. The agreement is no longer in force in any particular.

Mr. Scoll. So if you want to get together again you would have to make a new agreement?

Mr. Stannard. We would have to make a new agreement.

CURRENT SITUATION IN THE DOMESTIC COPPER INDUSTRY

Mr. Scoll. Now the history of the various cooperative efforts that we have reviewed thus far, Mr. Stannard, naturally raises questions as to whether any informal cooperation has more recently occurred in the domestic copper industry. I would like to ask you a few questions along that line. To your knowledge have any individual producers discussed the desirability of production control at any time since the N. R. A.?

Mr. Stannard. I do not remember of any such conferences.

Mr. Scoll. Have there been any conversations informally among producers in which opinions or information was exchanged with reference to the desirability of curtailing production?

Mr. Stannard. I don't know of any, Mr. Scoll.

Mr. Scoll. I am referring particularly to the possibility of recent exchange of opinions among the representatives of the primary producers.

Mr. Stannard. I am sure there have been no recent discussions.

Mr. Scoll. Well now, you do discuss from time to time the stock situation as shown by the figures compiled by the Copper Institute, do you not?

Mr. Stannard. Figures were turned in to the Copper Institute every month up to August 1939. Due to the outbreak of war we have since been unable to get foreign statistics and therefore discontinued issuing all statistics.

Mr. Scoll. Now I wasn't referring to the statistics exactly, but you remember "Exhibit No. 2095," [1] which we introduced yesterday, showing the trend in concentration of mine production, showed that the three largest producers of copper—with Kennecott the largest and including Anaconda and Phelps Dodge—produced 77.6 percent of the domestic mine output in 1937. Now the representatives of these three companies, that is you and Phelps Dodge and Anaconda, frequently meet as members of the Copper Institute, do you not?

[1] Appendix p. 13390.

Mr. STANNARD. I believe we had only two meetings of the Copper Institute in the past year, and at those meetings we had no discussions whatsoever as regards production within or without the United States.

Mr. SCOLL. Well, have you ever met on any other occasion and discussed it?

Mr. STANNARD. We have had absolutely no meeting in reference to production. Each company produces whatever its executives think most advisable to produce. I have no idea what Phelps Dodge is producing at this time, or what Anaconda is producing.

Mr. SCOLL. Now if, for instance, Phelps Dodge were to consider curtailing their production next month, you probably would find out about it pretty soon, wouldn't you?

Mr. STANNARD. We probably would find out about it through the newspapers, because if they did curtail, the Arizona papers unquestionably would have some comment.

Mr. SCOLL. You would have to look at the newspapers to find out?

Mr. STANNARD. Unquestionably so.

Senator KING. Curtailments frequently come by reason of the exhaustion of a particular deposit and then further exploration must be made to find another deposit?

Mr. STANNARD. That is true.

Senator KING. So that curtailment comes even where you desire to have a practically uniform output, isn't that true?

Mr. STANNARD. Well, curtailment——

Senator KING (interposing). By that I mean diminution in the quantity of copper produced.

Mr. STANNARD. That is true. At the present time, Senator, we are producing in our Kennecott enterprise about forty-one or forty-two thousand tons of copper per month. To get out that production we are handling 260,000 tons of rock per day, and from that tonnage of rock, which includes stripping removed to get at the ore, we are recovering on the average between 10 and 11 pounds of copper per ton handled. Business has been dropping off but we will probably continue at our present rate of production for another month or 6 weeks. However, if the business outlook is not encouraging around March, we will start gradually to reduce our production as men quit our employ and in this way will not have to lay off any men. For example, we will drop down possibly to a production in this country of 20,000 tons per month, where we are now producing say 30,000 tons. Any curtailment on our part will be made on the basis of our best judgment as to the outlook for business and will not have any reference to what Phelps Dodge or Anaconda may do as to their production.

Senator KING. Various manufacturing institutions, do they not, curtail production from season to season, or within the limits of a season?

Mr. STANNARD. That is true.

Senator KING. Depending upon the market, upon the prospective demand for their particular commodities, depending upon competition, depending upon the development by other manufacturers of rather unique or a little different product which is more attractive to the public, as a result of which their output is not uniform but is measured by demand and supply in various market conditions?

Mr. STANNARD. That is true. As I said this morning, it has been our experience over a period of years that we can operate at about 65 percent of our installed capacity. We have at times operated at 100 percent and other times at 40 percent. The average is about 65 percent.

Dr. LUBIN. Mr. Stannard, over how long a period of time, assuming that the hypothetical situation which you have just presented actually materializes, will that curtailment take place? In other words, curtailing from 30,000 to 20,000 tons a month? Will that take place within a month?

Mr. STANNARD. It would probably take place within 6 months, roughly.

Dr. LUBIN. In other words——

Mr. STANNARD (interposing). It would be a very gradual curtailment. We used to curtail much more abruptly, but in the last 2 or 3 years we have been trying to work out some scheme which would give more stability to our employment. In that connection, Kennecott some 2 years ago accumulated copper having a value of about $30,000,000. After having accumulated that much copper, buying started in June 1938—and in a period of 4 months we reduced our stocks of unsold copper from about 150,000 tons to perhaps 15,000 tons. Then we started another period of accumulation and in this second period which lasted from the fall of 1938 until June 1939 we again accumulated about 150,000 tons of copper, which at 10 cents a pound had a value of $30,000,000. Then buying started again and our stocks of copper were again reduced to a reasonably small level. Now we have started on another period of accumulation. We are trying to plan so as to give our labor fairly continuous employment. On the average, about 20,000 tons copper per month is about what we can find a market for.

Dr. LUBIN. I take it those accumulated stocks were disposed of in a rising market as business improved?

Mr. STANNARD. We started to sell those stocks at 10 cents a pound. That was the low point reached in June of last year. Whereas we sold only 12,400 tons of copper in the domestic market in the first 3 months of 1939, we sold in the first few days of July last year 86,000 tons. I am mentioning that to show you how the copper industry fluctuates. In a descending business cycle fabricators postpone their buying as long as they can and prices keep on slumping. In the decline last year the price went to 10 cents, and when business changed the price rose from 10 to 12½ cents. The man who is not familiar with the copper business might assume that the price received on one of these buying movements would be the average between 10 and 12½ cents, or 11¼ cents. But as a matter of fact much more buying is done in the first part of the rise than in the latter part, with the result that the average price received by the domestic producer on a movement from 10 to 12½ cents would be in the neighborhood of 10.75 cents per pound.

Dr. LUBIN. Which is a profitable venture under the wage system that prevails in the industry, isn't it?

Mr. STANNARD. Pardon me?

Dr. LUBIN. Which makes it a profitable venture under the wage system that prevails in the industry?

Mr. STANNARD. You mean at a price of 10 cents per pound?

Dr. LUBIN. Because I understand your wages are geared to the market price of copper and these stocks are accumulated during the period when the price is relatively lower; consequently your wage cost per ton is lower and you dispose of it at a higher market.

Mr. STANNARD. I cannot agree with you in that statement. I will take our particular case which I know better than that of the other domestic companies. Most of our copper was accumulated on the basis of 11¼ cents per pound because that was the price from October 1938 until March 1939. As I remember it there was one reduction in wages of 25 cents per day in that whole period, while last fall, when the price started up, we made an increase of 50 cents per day in wages, which brought the wages up to a higher level. We do not regulate wages on the basis of the price of copper. Some of the domestic companies do have a sliding wage scale. Generally speaking, we keep in line with their wage scales, although the last time wages were adjusted I do not believe we cut quite as much as some of the companies who were on a sliding wage scale.

On the other hand at the time of the increase in wages last October I think the Anaconda Co. increased wages 75 cents per day, whereas we increased 50 cents per day.

Senator KING. One of the reasons for the large accumulations was for the purpose of giving employment as far as possible?

Mr. STANNARD. That is true.

Senator KING. So that you accumulated, though you had no market and no immediate prospective market, but you wanted to give employment as long and as far as possible to your employees?

Mr. STANNARD. That is true.

Mr. SCOLL. Mr. Stannard, how many important consumers of copper are there in the United States, roughly speaking?

Mr. STANNARD. We are the largest producers and sellers of copper, and have on the average only 50 customers for our total output.

Mr. SCOLL. And some of those customers divide their purchases with other producers?

Mr. STANNARD. Some of those customers divide with other producers.

Mr. SCOLL. But outside of those 50, are there any others that you know about that are important?

Mr. STANNARD. There may be a few others. Of course, we do not sell to the Anaconda fabricating plants. All told, there may be 60 purchasers of raw copper.

Mr. SCOLL. Including the fabricators that are subsidiaries of the producers?

Mr. STANNARD. That is true.

Senator KING. In the United States, of course?

Mr. STANNARD. In the United States. The copper business is decidedly a wholesale business.

Mr. SCOLL. At this time I would like to refer you, or have you take another look at "Exhibit No. 2100." [1] That is the large chart showing the price movements in 1912 to the present. Now you will notice that after N. R. A. came in, or I should say after N. R. A. ended, there have occurred several months when the price remained unchanged. Now at this time I should like to introduce a chart which shows in somewhat greater detail the New York price trends, from 1933

[1] Appendix, p. 13394.

through 1939. The chart is entitled "United States Domestic Price, Stocks, Production, and Sales of Copper, 1933–1939." Prepared by the staff of the committee from information obtained from the Copper Institute and the Engineering and Mining Journal.

The CHAIRMAN. The exhibit may be received.

Senator KING. Has it been identified by the witness; Mr. Stannard, have you seen this chart?

Mr. STANNARD. I have.

Senator KING. Have you any comment to make on it?

Mr. STANNARD. I have no comment.

(The charts and tables referred to were marked "Exhibit No. 2161" and are included in the appendix on p. 13538.)

Mr. SCOLL. I would also like to introduce at this time an affidavit of H. H. Wanders of the McGraw-Hill Publishing Co., publishers of the Engineering and Mining Journal. This affidavit concerns the method of compiling—that is—securing and reporting the price averages on copper which the Engineering and Mining Journal publishes, and to which we have made frequent reference throughout the hearing.

Senator KING. Has there been any challenge to the substantial accuracy of the figures of the Mining Journal?

Mr. SCOLL. There has not been, Senator, but I am introducing it at this time because I think the record should show how these averages are made up. For whoever wants to refer to it in the future it would be a good idea, I think, to know what these averages really represent.

Senator KING. Mr. Witness, do you know how the averages are made up by McGraw's Journal?

Mr. STANNARD. I do not know exactly.

Senator KING. I have no objection.

The CHAIRMAN. Without objection the exhibit may be received.

Mr. SCOLL. This will bear the number 2162.

Senator KING. May I make this suggestion, Mr. Chairman, that the witness, after examining the affidavit as to the method by which the averages are prepared, if he desires to question or explain or comment upon them, may have that opportunity?

Mr. STANNARD. Thank you very much.

The CHAIRMAN. All these exhibits are subject to correction by anybody who desires to comment upon them, and the more the merrier.

(The affidavit referred to was marked "Exhibit No. 2162" and is included in the appendix on p. 13541.)

Mr. SCOLL. This affidavit which you have just introduced shows, and I believe you are aware, that the monthly average of the E. and M. J. represents the actual sales during each month made by each of seven sellers, whose names I would like to enumerate: The American Metal Co., the American Smelting & Refining Co., Anaconda Sales Co., International Minerals & Metals Corporation, Adolph Lewisohn & Sons, Kennecott Sales Corporation, and Phelps Dodge Corporation. Now those represent, do they not, the principal sellers of copper in New York?

Mr. STANNARD. Yes, they represent the principal sellers.

Mr. SCOLL. Now if there were any misrepresentation or, I should say, any inaccuracy that might appear in the E. and M. J. price, it

would occur only if any of those sellers did not correctly report all their transactions to the E. and M. J.; isn't that so?

Mr. STANNARD. One would think that would be the case. But I seriously doubt, Mr. Scoll, that our sales department reports all of our sales to the Engineering and Mining Journal.

Mr. SCOLL. You mean that Kennecott does not report all of its sales to the E. and M. J.?

Mr. STANNARD. I do not think we report sales made to our own fabricating plant.

Mr. SCOLL. Now you will note from the affidavit that the E. and M. J. price does not include sales that are made to fabricating subsidiaries?

Mr. STANNARD. I haven't read this and you will have to give me an opportunity to read it. It is all new to me.

Mr. SCOLL. Do so, please. Now that you have had an opportunity to look over the affidavit, have you any comment that you care to add?

Mr. STANNARD. I would like to discuss this affidavit with our sales department in New York and make sure that this is a correct statement. I do not know.

Mr. SCOLL. Well, as the Senator said, if there is anything you wish to add, that will go in the record, but so far as you know now that represents——

Mr. STANNARD (interposing). I can't dispute it.

Mr. SCOLL. Well, now, turning to "Exhibit No. 2100," [1] you will notice from that chart that there were only two occasions prior to N. R. A. when the monthly average of domestic copper prices remained unchanged for more than a month. In those two periods, the period of the War Industries Board and the 18-cent price level of 1929–30 which we discussed yesterday—and I should add that there was further a brief period, January-February of 1933, when the price was stable. In other words, during 22 years of domestic copper prices, stable prices or fixed prices, if they may be called that, occurred only during three periods; two of them were admittedly during periods of price control.

Now will you turn to the small chart, "Exhibit No. 2161" [2]. That chart shows that there have been six periods of price stability in the 5 years since N. R. A.

The first one, November 1935 to March 1936, when the price stayed at 9.025 cents. The next one was in May and June 1936, when the price was 9.275 cents. The third period of price stability was August and September 1936, when the price remained at 9.525 cents. And the next one was May to August 1937, when the price remained at 13.775 cents. And the next one, February to April 1938, when the price was 9.775 cents. And finally, one last period, November 1938 to March 1939, when the price remained at 11.025 cents.

How would you explain the situation that I have just described?

Mr. STANNARD. In the first two periods in 1935 and 1936 the industry was in a period of ascending prices and I think we were largely responsible for the stable prices that prevailed. We were not anxious to have copper go up, and then fall back again right away, and therefore did not raise our price as soon as other sellers of copper. In other

[1] Appendix, p. 13394.
[2] Appendix, p. 13538.

words, we preferred to have a strong 9¼-cent price, to a weak 9½ or 9¾-cent price and our price made the market quotation.

Mr. Scoll. What do you mean when you say we?

Mr. Stannard. I mean Kennecott Copper—Kennecott Sales Corporation.

Mr. Scoll. These prices were not just Kennecott's; they were prices reported by all the selling agencies covering 90 percent of all United States produced copper.

Mr. Stannard. I don't want to dispute the Engineering and Mining Journal but I know what happened at that time. We had copper to sell at 9¼ cents, let us say, and that being so, the price for copper was 9¼ cents and that was the quotation of the Engineering and Mining Journal. While some of the other producers may have had a price of 9½ cents, or 9¾ cents, I don't believe they made any sales at those prices, and therefore, the Engineering and Mining Journal quotation was really Kennecotts' quotation. That explains, I think, the first two.

Now as to 1937. There had been a long period of heavy business and by the middle of 1937 most of the members of the industry were in a very much oversold position. During such an oversold period when practically all of the industry was getting back from an oversold position to a position of balance there was no copper pressing on the market and, therefore, a uniform quotation prevailed.

Coming now to 1938–39, there was a period when the price was 11¼ cents. We and many others were again sold out of copper in the fall of 1938. When business dropped off we started to accumulate, and irrespective of the quotation of anyone else, we held our price at 11¼ cents and accumulated copper. I think the industry was optimistic as to the future. I know we were decidedly optimistic and thought business would be much better by February 1939, in which case the price might hold at 11¼ cents. But business did not pick up as we expected, and in March the price was reduced by certain units in the industry. We followed the reductions in price to 10 cents a pound, where the buying again started.

Mr. Scoll. Do you think there is any significance in the fact that these periods of price stabilization should have occured so frequently after N. R. A. and so infrequently before N. R. A. and then in prior periods at times, when it was admitted—as it was here yesterday—that the price was fixed?

Mr. Stannard. I do not think there is any significance in these plateaus, as we call them. They are the result of buying waves in the industry during which custom smelters and producers get sold out or oversold, and then there is a period of 2 or 3 months of stable price when they are balancing their positions.

Mr. Scoll. Then you of course did not participate in any discussions of prices with any of the other members of the industry whom I named before?

Mr. Stannard. No.

Mr. Scoll. Do you know of any discussion that might have taken place with the others?

Mr. Stannard. I do not know of any.

Mr. Scoll. Has either Anaconda, Phelps Dodge, or Kennecott ever been the leader in cutting prices from the table lines which have occurred since N. R. A., that you know about?

Mr. STANNARD. Yes; on one occasion after the expiration of N. R. A. Phelps Dodge, I believe, reduced the price from 9 cents to 8 cents in one move.

Mr. SCOLL. Is that the only one you know about?

Mr. STANNARD. That is the only one I think of at the moment.

Mr. SCOLL. Have any of the producers that I named been responsible for leading an upward price movement from the levels which we have been discussing?

Mr. STANNARD. Well, I think, unquestionably they have.

Mr. SCOLL. Has Kennecott?

Mr. STANNARD. We led in an advance last July from 10¼ cents to 10⅝ cents. That is the only one that I can recall in recent periods.

Senator KING. I suppose the decrease or the increase would depend upon the market demands or the prognostications as to the future?

Mr. STANNARD. That is true. The increases particularly depend upon market demand.

Senator KING. And where you are sold out, or your stocks are pretty well depleted, that would call, if you expect even a return to normal business, a replenishing of the stocks by increasing production?

Mr. STANNARD. By increasing production; yes. But Senator, that would not always hold true, because if we thought the demand for copper was going to remain at say 55,000 tons per month, it might not be necessary to increase production to satisfy that demand. On the other hand, if we thought consumption was going to increase from 55,000 tons a month to 70,000 tons a month, we would immediately anticipate it by an increase in production.

Senator KING. For my own information—it may not be quite germane—when I was making an investigation of the stock markets in 1925, '26, '27, '28, and '29, I found very irregular prices and I found there was a great deal of speculation, not alone by producers but large speculation by the market on the stock exchange and those speculations extended to the most remote parts of the United States. Was there any considerable speculation in copper stocks during that period?

Mr. STANNARD. There was a tremendous speculation.

Senator KING. And where general——

Mr. STANNARD (interposing). I might say also there was a great deal of speculation in copper at the time. Everyone was expecting inflation and I remember we had innumerable calls from people who wanted to buy as much as 1,000 tons of copper metal in order to put their money in something physical. As I recall now we sold only about 1,000 tons of copper of this type, as we thought it was a very bad thing to do.

I have here a little statement made by Dr. Harold G. Moulton, president of The Brookings Institution. This was from an address he made in New York. He says:

> The sharp increase which has occurred in the prices of raw materials is the result of demand from two sources: (1) from speculators seeking to make profits by anticipating price advances based on expectations of war-time inflation; and (2) from industries desiring to expand inventories to take care of immediate and prospective requirements. The speculative element enters here also, since an expected price advance prompts heavy advance buying.

Mr. SCOLL. Mr. Stannard, the present producer's price of domestic electrolytic is 12½ cents, is it not, approximately?

Mr. STANNARD. I understand the price was cut yesterday afternoon to 12¼ cents by the Miami Copper Co.

Mr. SCOLL. Up to yesterday afternoon it was 12½ cents?

Mr. STANNARD. It was 12½ cents, although the foreign price had been somewhat above 12½ cents until a few days ago.

Mr. SCOLL. How long did that 12½-cent price obtain?

Mr. STANNARD. Since about October 1, about 3½ months.

Mr. SCOLL. Was there any implied or explicit understanding between Kennecott and the other producers not to let that price go above 12½ cents?

Mr. STANNARD. No; there was no understanding at all.

Mr. SCOLL. To what influence do you ascribe the fact that the price stayed at 12½ cents so long?

Mr. STANNARD. Everybody was in an oversold or practically oversold position on October 1, so there was no copper pressing on the market.

Mr. SCOLL. No influence from the fact that there was a statement in high official quarters in Washington that 12½ cents was a good price for copper, was there?

Mr. STANNARD. There may have been such a statement in Washington.

Mr. SCOLL. You don't think that had any influence?

Mr. STANNARD. I don't think that had any influence in stopping the price at 12½ cents. I think the thing that really stopped the price at 12½ cents was the fact that Kennecott had a large tonnage of copper to sell and that served to keep the price down.

Mr. SCOLL. There was some discussion among the producers about the statement I referred to, wasn't there?

Mr. STANNARD. There may have been a little discussion about it.

Senator KING. Who were the high officials in Washington that determined the price and told people when it was too high and too low? I would like to know who they were and what authority they had.

Mr. SCOLL. Senator, I am referring, and I hope I am referring correctly because this is a matter of considerable importance—it would be very embarrassing for the counsel of the committee to go wrong in this matter, but I think that a statement was issued from the White House with reference to the price of copper, that 12½ cents was high enough. Thereafter the price of copper, I believe, and Mr. Stannard can testify whether I am right or not, at least for a time stayed at 12½ cents.

Mr STANNARD. It did stay at 12½ cents from October 1 until yesterday.

Mr. SCOLL. And it did not go above 12½ cents at any time during that period?

Mr. STANNARD. Not in the domestic market.

Senator KING. Did it in the foreign?

Mr. STANNARD. In the foreign market I think some copper was sold as high as 14 cents. Quite a lot of copper was sold at 13 cents.

Mr. SCOLL. Now, Mr. Stannard, will you look at "Exhibit No. 2161,"[1] the detailed chart which was introduced a while ago that shows at the bottom "Stocks, Production, Sales for 1933–39." You will notice the wide fluctuations in the line marked "Sales" from '34

[1] Appendix, p. 13538.

through to '39. Could those wide fluctuations in sales be interpreted as being caused by buying waves or as representing buying waves?

Mr. STANNARD. In each case they represent buying waves.

Mr. SCOLL. Will you describe for the committee briefly the buying habits of United States fabricators of copper?

Mr. STANNARD. In a period of uniform business and price the consumer of copper would ordinarily buy his copper daily or weekly, but in the last few years, due to wide fluctuations in business, the consumer of copper has had a tendency to use out of his stocks when business is on a downward trend. A fabricator who will have, let us say, 50,000,000 pounds of copper in process in his fabricating plant can safely reduce the volume in process by 10,000,000 pounds of copper if business declines 30 percent. With the price of copper down he comes into the market when the business outlook improves. This starts a buying wave in which it is not uncommon for the whole industry to sell as much as 150,000 tons of copper. If consumption is 50,000 tons per month and 150,000 tons is sold in one of these buying waves 3 months' consumption is covered in a period of 2 or 3 days. These buying waves are something we would like to get away from.

Mr. SCOLL. When they occur they of course affect prices.

Mr. STANNARD. When they occur they affect prices.

Mr. SCOLL. Generally upward?

Mr. STANNARD. Generally upward.

Dr. LUBIN. Do they occur in anticipation of prices? Is it the expectation that prices might go up that makes these people buy?

Mr. STANNARD. They hold off until they think prices are down to a minimum rock bottom level and then the consumers of copper—by the consumers I mean the people out in Dubuque, Iowa, and so forth, in contrast to the actual fabricator himself—will be in need of replenishing their stocks, and then they will come to the fabricator and place an order for so many pounds of brass or sheet copper or other copper material, and that starts one of these buying waves, and then the fabricator in turn asks the producer of copper for these tonnages.

Dr. LUBIN. Of course, these people know, though, what the stock situation is in the country. Why should they get worried and buy 150,000 tons all of a sudden when they know that copper is available in the United States? Is it fear of a shortage, or is it fear of the fact that you have touched bottom on prices, that you had better buy now because if they wait they will be higher?

Mr. STANNARD. It is the idea that prices have reached bottom and by buying now they can make an inventory gain.

Dr. LUBIN. So that instead of this necessarily bringing about the high price, it is in itself a result of anticipation of a higher price.

Mr. STANNARD. Well, I would say it is because the price of the raw material is low, and they think it is advisable for them as a business proposition to fill up their shelves.

Dr. LUBIN. But there are other periods where you don't have the waves where people do buy, I mean months may go by where people just buy their regular quota, and all of a sudden they get scared and buy 150,000 tons. Now why should they get scared when they already know that the stocks are here, because they know what the stock situation is. What other factor other than the fear of a higher price would lead a man to buy three times more than he normally buys?

Mr. STANNARD. The fear of inflation and anticipation of higher prices.

Dr. LUBIN. Now in September, most of the consumers of copper thought that copper having sold for 31 cents a pound or 23½ cents a pound during the first World War, the chances were that copper would again sell at such prices in this world war. They didn't stop to think that the conditions are now entirely different than they were in the first World War. Then the Chilean production was relatively small, the Canadian production was insignificant, the Rhodesian and Belgian Congo production was insignificant, and the United States mines virtually had to supply the copper for the world. Today, the Dominion copper—that is the Canadian copper—and the Rhodesian copper is sufficient to take care of England's needs in this war and much more. So that there isn't the demand now from Europe for copper that there was at that time, and that virtually leaves the American supply of copper—rather the United States supply of copper—for the United States market.

Of course, that was true in September, 1939, but after all, there were no such factors in '34, '35, and '36, when you also had buying waves. In other words, what I am trying to get at is whether or not these waves would be eliminated if there was any way of knowing, as in some other industries, that during the next quarter the price is not going up. I mean if Kennecott could say, "As far as we are concerned 12½ cents is our price and is going to stay our price for the next 2 or 3 months," would people rush in to buy copper at three times their normal consumption rate?

Mr. STANNARD. No, they wouldn't; but if Kennecott would say that its price was going to be 12½ cents for the next 3 months, some of the other producers might not follow and the price might go down to 12¼ or even 11 cents. While Kennecott is the largest producer it cannot control the price of copper.

Dr. LUBIN. Kennecott can say, "As far as we are concerned it won't be more than 12½, which means in effect that it might be less, and somebody else might be willing to sell it to you at less," which gets back to a question you raised—I don't know whether counsel cares to have me bring it up at this point, Mr. Chairman. If you had a market where you could buy and sell futures, couldn't you eliminate these wild fluctuations in selling of copper?

Mr. STANNARD. I don't think that you could. I do believe that with the enactment laws here in Washington, for example, a law such as the wage and hour bill, the consumers of copper immediately think——

The CHAIRMAN (interposing). Are we to understand that you don't want any change in the Wage and Hour Bill?

Mr. STANNARD. I didn't mean that, Senator. What I was going to say is this: The effect of the passage of such a bill——

Senator KING (interposing). Or the threat of it.

Mr. STANNARD. The threat of such a bill causes the consumers of copper to come into the market for large tonnages before the bill or law becomes effective. That happened at the time of the passage of the Wage and Hour bill.

The CHAIRMAN. Of course that criticism can be made of any law, can it not?

Mr. STANNARD. That is true.

The CHAIRMAN. And if a legislative body, whether the Congress of the United States or the legislatures of the various States, were to refrain from passing necessary laws or attempting to pass necessary laws, or laws which the members believe to be necessary, merely because they had an immediate effect upon our economy, then there would be no legislation at all. Isn't that correct?

Mr. STANNARD. I think it is.

Dr. LUBIN. May I follow up your question, Mr. Chairman? What laws were passed in '35 after the Social Security Act became effective, in '36 and '37, which created a cost situation in your industry that might have scared buyers to come in and buy?

Mr. STANNARD. The N. R. A.——

Dr. LUBIN (interposing). I am talking from the time the N. R. A. was declared unconstitutional and the passage of the Social Security Act, between that period and the passage of the Wage and Hour Act—what laws were enacted to explain this tremendous fluctuation in '35, –36, and '37?

Mr. STANNARD. I don't know offhand whether I can name any other law, but I would like to say this: Going back to the period 1923 to 1928, that was probably the most uniform period of industrial activity that we have ever had in this country. During that period the price changes were very small; we did not have these buying waves. Since 1933 we have had many changes in business here, we have had big rises in business, and then it has fallen off, and the copper industry is very similar to the steel industry. When steel operates at 90 percent the copper fabricators are operating at about 90 percent; as steel goes down, copper goes down. Our monthly consumption of copper from '23 to '28 was very uniform. As I explained the other day, in recent years we have gone from a minimum of consumption of 18,000 tons a month up to a maximum consumption of 87,000 tons per month. Those wide fluctuations in business that we have had are responsible for these buying waves.

I think today if we could have uniform business, and let us say the price of copper was 21 cents per pound, it would be a fine thing for the copper industry and a fine thing for the fabricators and the consumers of copper if the price of copper did not fluctuate more than an eighth of a cent per pound per month. If we had that kind of condition, we would get away from these buying waves because then no consumer of copper would be interested in speculating on his future supply. I don't know, however, how we could ever arrive at such a uniform situation as that. I think it would be advisable, but I don't know how we could accomplish it.

Dr. LUBIN. Don't you automatically bring that situation about when you have a futures market so you can hedge against the price of your raw materials?

Mr. STANNARD. Not entirely so

Dr. LUBIN. You eliminate the greatest part of that fluctuation, you know what the copper is costing you when it gets into production.

Mr. STANNARD. From the standpoint of the consumer hedging is probably a good thing. Most of the producers would like to do away with commodity exchanges as hedging gives rise to too much gambling. We ourselves do not use the commodity market and I personally know very little about the operation of the commodity exchange.

Dr. Lubin. Does the Chase Brass & Copper Co. go on these buying spurts the way the others do?

Mr. Stannard. The Chase Brass & Copper Co. buys from Kennecott every day an amount of copper sufficient to meet its daily sales. When these buying waves occur and Chase customers order brass and copper products requiring, let us say, 5,000,000 pounds of copper, Chase Brass & Copper Co. buys that amount of copper from Kennecott. Every fabricator has to take care of the needs of its customers.

Dr. Lubin. Do these people buy this stuff for immediate delivery, or do they just place forward orders?

Mr. Stannard. Copper is usually sold for delivery 3 months hence. In other words, we sell copper in January for delivery in the month of April.

Dr. Lubin. If the Chase Co. should get an order for certain fabricated materials that required a certain amount of copper, and they are going to use that copper in March, April, May, and June, would they buy that complete supply today?

Mr. Stannard. They would buy the supply today for delivery in those months.

Senator King. There are many orders for copper by persons who are not the users of copper, are there not? You call it speculative, speculative buyers.

Mr. Stannard. Those people deal mostly on the commodities exchange. We do not sell to people who are not users of copper.

Senator King. But in the market, are there not persons who are buying on speculation the same as they buy stocks of other corporations?

Mr. Stannard. There are, Senator.

Senator King. And those purchasers, whether they are many or few, have some effect upon the price.

Mr. Stannard. That is true.

Senator King. I recall when the price of sugar went up to 26 cents a pound, although just a short time before it was only 4 or 5 or 6 cents a pound. Have you not from your observations discovered very great fluctuations in other commodities during the period concerning which we have directed attention?

Mr. Stannard. That is true.

Senator King. Would that not be true in copper and wool and many of the commodities which——

Mr. Stannard. That is true, of the metals, copper is more speculative than zinc or lead.

Senator King. We haven't yet been able to eradicate from the human mind the desire for speculation.

Mr. Stannard. That is true. Mr. Chairman, I have an article, or an excerpt that is taken from the report of the National Resources Board, part 4, entitled, "Report of the Planning Committee for Mineral Policy," issued in early 1935, which reads as follows:

> Economic stability is of peculiar importance to the nonferrous metals. They are especially subject to and they suffer from wide variations of price. They need, above all things, to balance supply and demand, to avoid needless expansion of capacity, and to temper the extremes of price fluctuation, whether sudden advances or violent declines. The quest for stability is seen in numerous foreign experiments, such as the European metal cartels, which have been attempted, none too successfully, to control the extremes of competition.

Moreover, in the case of these metals, the consumer's objections to production control carry less weight than in the case of the typical manufacturing industry. The problem of protecting the public against unreasonable advances in price is simplified by the conditions of the copper market. International movements in a commodity selling at several cents a pound are extraordinarily fluid, and except for freight and tariff differentials, the price of copper is a world price. Competition from foreign sources is keen, so keen, in fact, that American copper producers have found it impossible to realize the full advantage of the import duty adopted in 1932. In the domestic field there remains a large reserve of high-cost capacity waiting for a chance to break into the market. Further, the consumer of copper has his own weapons. The scrap which he produces makes him a seller as well as a buyer of the metal. Copper is practically indestructible, and the total supply is cumulative. With minor exceptions, the fabricated product comes back in time for resmelting and re-use. In 1929, the recovery of scrap including copper in brass, was 404,000 tons, as compared with a new mine production of 998,000 tons. This salvaged copper (not including new scrap returned direct by fabricators) averaged 38 per cent of the mine production from domestic ores in the years from 1924 to 1928, inclusive, 41 per cent in 1929, and rose to 76 per cent in 1932. An advance in the producer's price must reckon with this flood of scrap. Again the consumer has the alternative of substitution. In the field of power transmission copper meets competition from aluminum. In other fields it competes with this and other metals, including a rapidly growing group of alloy steels. All these factors work to protect the consumer against any unreasonable advance in copper prices to a degree far greater than is true of most lines of manufacture.

Senator KING. Who was the chairman of the planning committee at that time?

Mr. STANNARD. Mr. Delano, as I remember it.

Senator KING. Who is now the head of it?

Mr. STANNARD. He is now the head of it, and I think Dr. Leith, of the University of Wisconsin, was the head of the Division on Mineral Resources.

The CHAIRMAN. I understand the witness has read that with approval.

Mr. STANNARD. That is true.

Senator KING. May I ask one question? Is it not a fact that the scrap iron is a factor in determining the price of steel that is manufactured by the big steel companies?

Mr. STANNARD. It is, yes, sir.

Senator KING. There is a vast amount of scrap iron?

Mr. STANNARD. There is a vast amount.

Senator KING. We furnish, I regret to say, a very large amount of scrap iron, and have been for several years, to Japan, and that has an effect upon the price of the steel that is furnished by the big steel companies of the United States.

Mr. STANNARD. If export copper is eliminated, about 90 percent of the copper as mined is preserved in the form of recoverable metals and about 10 percent is used in iron and steel and in the making of insecticides. Eventually you will have a surface copper mine instead of an underground mine.

Mr. SCOLL. I have one final question on the matter of buying waves that I would like to ask Mr. Stannard. You referred a while ago to Kennecott's policy of accumulating a conservative amount of inventories to stabilize your production.

Now, if the other producers were to follow that same policy, wouldn't you be able to resist the wide price movements that occur with buying waves without the necessity of having to get together and have understandings?

Mr. STANNARD. I think it would be very helpful.

Mr. SCOLL. My question had two parts, so maybe I had better divide it. You think the practice would be a good one to follow.

Mr. STANNARD. My first impression is that it would.

Mr. SCOLL. Now, the second question is, would it prevent the wide buying fluctuations.

Mr. STANNARD. I think it would tend to stability of price, and stability of price would tend to reduce these buying waves.

Mr. SCOLL. So that it would be unnecessary to rely on cooperation to prevent these fluctuations in price. Is that an accurate conclusion?

Mr. STANNARD. I would like to think that over. It is a new thought.

The CHAIRMAN. Have you finished this phase of it?

Mr. SCOLL. I have.

The CHAIRMAN. The Chair wants to take advantage of this moment to introduce into the record as a part of the investment study presented by the Securities and Exchange Commission a few weeks ago, a memorandum which was prepared by Mr. R. C. Leffingwell, of the firm of J. P. Morgan & Co. Mr. Leffingwell was one of the witnesses who appeared before the committee at that time,[1] and he indulged in a very stimulating discussion of general economic policy, apparently prepared a memorandum on this same subject matter, and under date of January 2, sent a copy of it to the chairman. The chairman was absent from Washington at the time, having gone home for a brief visit, so that the letter was not called to his attention until yesterday afternoon.

This afternoon Mr. Leffingwell called the chairman from New York to say that extracts from this memorandum had gained some publicity, and he asked for permission to give the entire text out. That permission, of course, was very readily granted, and I am now putting the memorandum in the record. It may be proper in putting it in to call attention to one or two significant statements in the memorandum. I was reminded of this by the action of the witness just now in quoting from a report of the National Resources Board, in its report of the Planning Committee for Mineral Policy, because Mr. Leffingwell in this memorandum indicates that he is not altogether in harmony with what has been commonly called planned economy. Planned economy is one thing when it is carried on by business executives, and quite another thing when carried on by Government, but both by business executives and by Government it unquestionably has an important effect upon the general public. I note with interest that the witness quoted this report of the planning committee with some approval.

The particular statement to which I refer now is:

> The point is that Government has for twenty-two years managed our money and to a great extent planned our economy.

Then in this memorandum Mr. Leffingwell makes some reference also the the tariff system and to the general effect of Government action upon recovery. It may not be inappropriate for me to say, while I was on my way back from Wyoming—that was last Sunday—I picked up a copy of the Chicago Sunday Tribune in Chicago and in the business and finance section I found several very interesting headlines. One was this: "Business Pace Quickens After Lag at Year

[1] See Hearings, Part 23, p. 12101, et seq.

End." "Rebound is Normal From Holidays." Then follows a two-column article by Leland Forrester, the general tone of which is to show generally improved business conditions. Side by side with that is another story from New York bearing the headline, "Building Sets Best Record in Nine Years." On the same page is another story, "Two Furniture Shows Report Heavy Buying." And then there is another story, "British Tighten Money Control to Aid Business." In the middle of the page I find this story, "F. H. A. Activities Show Increase for Last Year." "Northern Pacific to Buy Seven Engines for About $500,000."

And so it goes, but the most important of all it seemed to me was this graph, apparently prepared by the Chicago Tribune, entitled, "Number of Automobiles and Amount of Gasoline Used Reached New Peak in 1939." This graph shows that the total passenger and truck registrations have been on a steady increase since 1933, and that in 1936, they had already passed the previous high of 1929, and in 1937, '38, and '39, were far in excess of anything that had appeared in the history of the automobile business. And the story of gasoline consumption was exactly the same. It seemed to me that these comments might be appropriate at this time.

Dr. LUBIN. Do you wish to add "in spite of the legislation"?

The CHAIRMAN. I accept that amendment.

Senator KING. What legislation has Dr. Lubin in mind?

Dr. LUBIN. The legislation which interfered with business.

(The memorandum referred to was marked "Exhibit No. 2163" and appears in Hearings, Part 23, appendix, p. 12338. The chart referred to was marked "Exhibit No. 2164" and is included in the appendix on p. 13542.)

The CHAIRMAN. You may proceed now.

Mr. SCOLL. Apropos of the discussion that just took place about the commodity exchange, I would like to introduce at this time a table which shows trading in copper futures on the Commodity Exchange, Inc., New York, compared with domestic direct sales of refined copper by copper producers, 1929–39.

The CHAIRMAN. It may be received.

(The table referred to was marked "Exhibit No. 2165" and is included in the appendix on p. 13543.)

Mr. SCOLL. Just to summarize that exhibit, it shows that when the exchange opened—that is, when copper trading began on the exchange in 1929—6,132 tons were sold. In 1939, 537,880 tons were sold; in other words, the highest for all preceding years, and the chart shows a rising trend of importance of copper sales on the Commodity Exchange.

Mr. Stannard, during the buying wave of September, did the copper producers ration sales to consumers?

Mr. STANNARD. They did to a certain extent.

Mr. SCOLL. What producers to your knowledge rationed sales?

Mr. STANNARD. At the very end Kennecott rationed sales in a way. In the first few days of October the price of copper was advanced by some of the producers from 12 to 12¼ cents. When that occurred we had calls from different customers and not knowing how much copper they might need altogether, our sales department made a note of the amount of copper they wanted to buy, and, as I remember, it totaled about 16,000 tons. The next morning we allocated to each one of

these customers a certain percentage of the copper asked for. The next day we gave them another part of it, and then, knowing that they could get the copper, they ceased to want the balance. Some of the other producers may have done this same thing. In this way we were trying to tell our customers not to worry about their supply of copper. We thought the cycle had about run its course and could not conceive that business could keep up much longer at such a high level. When we think the price is getting to the top our general recommendation to customers is not to buy copper that they are not going to use for 6 months or a year, because they may be able to get it at a lower price later on.

Mr. SCOLL. The effect of that, of course, is to prevent the market from running away.

Mr. STANNARD. That is the effect of it.

Mr. SCOLL. That is the desired effect?

Mr. STANNARD. That is the desired effect, and I think it does help to prevent runaway markets.

Mr. SCOLL. What will prevent a dissatisfied customer of Kennecott's from buying copper from some other producers?

Mr. STANNARD. There is nothing to prevent him.

Mr. SCOLL. Do you know whether any of them succeeded?

Mr. STANNARD. I really do not know.

Mr. SCOLL. You recall, do you not, that during that period higher prices were reported on the Commodity Exchange—that is the outside market—during September than the producers were getting, isn't that correct?

Mr. STANNARD. Yes, I think the high price on the Commodity Exchange in September was about 14 cents per pound, which compared with a producer's price of 12 to 12½ cents.

Mr. SCOLL. Had Kennecott been willing to ask for a higher price could it probably have gotten it?

Mr. STANNARD. I don't think there is any question but what we could have had 13 cents, or maybe more than that had we been so inclined.

Mr. SCOLL. You were quoting before from a report of the National Resources Board, a report on National Planning and Public Works in Relation to Natural Resources and Including Land Use and Water Resources with Finding and Recommendations, Part IV of the Report of the Planning Committee for Mineral Policy, and I might add parenthetically that Commissioner Leon Henderson of this body was a member of the committee that made the report.

Senator KING. Who were the other members of the committee?

Mr. SCOLL. C. K. Leith, vice chairman. We already have the name of the chairman. Herbert Feis, of the State Department, John W. Finch, of the Bureau of Mines, J. W. Furness. Mr. Leith—I don't know whether he is with the Government or not.

Mr. STANNARD. He is with the University of Wisconsin.

Mr. SCOLL. C. T. Harris, Jr, Mr. Leon Henderson, W. C. Mendenhall.

Senator KING. He is with the Geological Survey.

Mr. SCOLL. I believe so. F. A. Silcox.

Senator KING. He was the head of the Forest Service.

Mr. SCOLL. Wayne C. Taylor.

Senator KING. He was Assistant Secretary of the Treasury.

Mr. SCOLL. And W. L. Thorp.

Senator KING. He is with the Department of Commerce.

The CHAIRMAN. And he is on the staff of this committee.

Mr. SCOLL. In that publication appears the following statement—that is in addition to what you have read:

> The committee offers the following recommendations.
>
> Full and complete statistics should be provided covering all factors of supply and demand, including consumption and consumers' stocks as well as production and producers' stocks, and including scrap as well as virgin metal. Such market information should be deposited with one of the permanent Government mineral fact-finding agencies. The basic data should be compiled in the form of totals or aggregates and published promptly for the use of both consumer and seller. The collection of such statistics should proceed with the closest cooperation of the trade organizations most interested.

Now you recall, do you not, that in September 1939, the Copper Institute suspended publication of domestic and foreign copper statistics?

Mr. STANNARD. That is correct.

Mr. SCOLL. And why were the foreign statistics suspended?

Mr. STANNARD. They were suspended because we could not get statistics from the Rhodesian, Canadian, and Belgian producers at that time. We are not able to get the statistics from the Canadian producers even now.

Mr. SCOLL. And why were the domestic statistics suspended?

Mr. STANNARD. It had always been the custom to publish the foreign and the domestic figures at one and the same time. It was the general opinion of the domestic industry during the period of hysteria at the outbreak of the war and during the month of September that speculation would be decreased if the figures were not published. We came to that conclusion because consumption was extremely high at that time and we had not yet been able to increase mine production to a point where it anywhere near balanced consumption. Had we published statistics at that time I am afraid it would have led to rather extreme speculation.

Mr. SCOLL. It was your attitude then if the domestic statistics on stocks and production were known that there would be a considerable price advance on the Commodity Exchange?

Mr. STANNARD. There might have been.

Mr. SCOLL. Suppose the price had gone up on the Commodity Exchange, why would the producers have had to follow it?

Mr. STANNARD. The Commodity Exchange price has a very decided influence upon the consumers of copper. If the Commodity Exchange price should be 15 cents and the producer's price 12½ cents the consumers would think there was certain to be an advance in price and consequently would buy.

Mr. SCOLL. You testified that the method of controlling the buying wave was through rationing which you employed. I might add that the producers did not follow when the price on the Commodity Exchange rose above 12½ cents.

Mr. STANNARD. That is true; they did not follow.

Mr. SCOLL. Do you recall that statistics were suspended, that is domestic statistics, by the American Bureau of Metal Statistics in October 1931?

Mr. STANNARD. I do not recall that, Mr. Scoll. It may have been so.

Mr. SCOLL. And if that happened, that was a suspension under conditions of depressed buying, and in your opinion, perhaps if they had not been suspended conditions would have been worse?

Mr. STANNARD. They might have been; yes.

Mr. SCOLL. See if I correctly summarize your view on the matter of publication of statistics. The essential point is that the producers are better able to control prices during abnormal periods if statistics are suspended during such periods. Does that summarize it?

Mr. STANNARD. I think that is true.

Mr. SCOLL. You are aware, are you not, that other industries—take petroleum, for example—have adopted exactly the opposite policy; that also the automobile industry releases figures on annual production and sales both in good times and bad. Obviously the suspension of copper statistics in October 1931 did not lead to better prices than otherwise would have occurred, did it?

Mr. STANNARD. No; it did not because we were then in a descending business cycle.

Mr. SCOLL. That is all I have with this witness.

Dr. LUBIN. Mr. Stannard, do you really believe that the more you can keep the public and your consumers in ignorance the better it is for your industry?

Mr. STANNARD. No; I do not think that, but I do think with a commodity like copper that if we published statistics every quarter instead of every month, it would tend to narrow the fluctuation in the price of copper.

Dr. LUBIN. In other words, by keeping the consumer ignorant of what the stock situation is, it makes it impossible for him to get a true picture of the conditions of production and thereby making it possible for the producer to keep his prices higher than otherwise the market would make them.

Mr. STANNARD. If you have in mind that it is for the best interests of the American public to have copper selling at 5 cents a pound instead of at a price where the producer can make some return on his investment, that is one thing. But if you think it is in the public interest for the producer of copper to, as I say, make a little something on this investment, then I do not think you should want the consumer of copper to get his supplies at less than the cost of production.

Dr. LUBIN. Would you, therefore, advocate that we eliminate all industrial and production statistics and stock statistics so nobody will know what the true situation is?

Mr. STANNARD. I am not advocating that at all. I am a believer in statistics, but think that the speculators take a great deal of advantage from the publication of copper statistics. When business is in a downward cycle and they see stocks of copper increasing, speculation tends to weaken the price and finally prices may go down to 7 or 8 cents a pound. If figures were not available to the speculator—I am not speaking of the consumer, but the speculator—I think it would narrow price fluctuations very materially.

Dr. LUBIN. That would be true of cotton, too, wouldn't it?

Mr. STANNARD. Well, I do not know very much about cotton.

Dr. LUBIN. That is, I mean the absence of statistics on production and stocks would make it impossible for the speculator, when he sees a report to the effect that the crop is going to be bigger than they

anticipated, from being a factor in getting lower prices, and that would be true in wheat equally well, wouldn't it? In other words, one would almost logically have to come to the conclusion that, "Let's eliminate all of these statistics and let's do business ignorantly rather than intelligently."

Mr. STANNARD. I was brought up as an engineer and engineers generally like to do business intelligently. I am not advocating doing away with all statistics. In a war period when we are apt to have many sudden changes in conditions, it is probably better to be on the safe side as regards statistics. Beginning with January 1 this year I would like to see copper statistics published every quarter until such time as we again arrive at a period of stability.

Dr. LUBIN. In other words, you don't think that supply and demand should determine the price of copper?

Mr. STANNARD. Not entirely so because on the basis of supply and demand—if you were to have a period when you would use 18,000 tons of copper per month and you had a supply of 80,000 tons of copper per month—what would the price be? It might be 5 cents or 4 cents, and copper cannot be produced for anything like 4 cents a pound in the United States.

Dr. LUBIN. After all, isn't that the fundamental way of the American system of doing business?

Mr. STANNARD. Yes, it is, generally speaking.

Dr. LUBIN. You think your industry should be made an exception to that rule?

Mr. STANNARD. No; I do not believe in exceptions. I think we have in American life today too many groups, each one asking a special position, and having that belief, I cannot ask that the copper industry be made an exception.

The CHAIRMAN. Are there any other questions to be addressed to Mr. Stannard? Who is your next witness?

Mr. STANNARD. May I say just one word? I want to thank you and the committee for all your courtesies, and repeat what Mr. Kelley said yesterday about Mr. Scoll and Mr. Moment. They have been most courteous and cooperative. I thank them also.

The CHAIRMAN. The committee is very much indebted to you, Mr. Stannard, for a very frank discussion of the issues.

Mr. SCOLL. My next witness is Mr. Brownell who will only take a few minutes, and I think he wants to go back tonight.

The CHAIRMAN. Very well, put him on.

TESTIMONY OF FRANCIS H. BROWNELL, CHAIRMAN OF THE BOARD, AMERICAN SMELTING AND REFINING CO., NEW YORK, N. Y.

Mr. SCOLL. Mr. Brownell, will you tell the reporter your full name?

Mr. BROWNELL. Francis H. Brownell. I am chairman of the American Smelting & Refining Co.

Mr. SCOLL. Does the American Smelting & Refining Co. own any substantial copper-mining property?

Mr. BROWNELL. No.

Mr. SCOLL. Its principal connection with copper is that of a smelter and refiner of the ores of other producers?

Mr. Brownell. Mostly. It has a small copper production, but of no consequence.

Mr. Scoll. How important in its total income are the profits obtained from smelting and refining copper?

Mr. Brownell. Well, our total business is lead, copper, zinc, and gold and silver, and so on. We can't allocate as between copper or lead or gold or silver. Our total expenses—broadly speaking, the tonnage of lead that we handle on a customs basis is greater than the tonnage of copper. The tonnage of copper, owing to the fact that copper has a higher price, generally two to three times, is in a monetary sense more important than the lead. Zinc is third. Then we have our own mines. They are not copper mines but they are lead-zinc mines and gold and silver mines. And that all enters into the picture. We don't keep our books on the basis of metals and I can't really tell you.

Mr. Scoll. But it is an important factor.

Mr. Brownell. It is a very important factor.

Senator King. And if the ores which you smelt have an arsenical compound, the profits from your copper would be lower because of the cost of reduction and refining would be greater to get rid of those refractory and base elements which are very injurious in your smelting operations.

Mr. Brownell. Exactly, Senator.

Senator King. So that you can't tell just how much cost to allocate to copper because you don't know just what proportion of the cost of smelting that was caused by the base and deleterious compounds or elements.

Mr. Scoll. I asked Mr. Kelley to distinguish between the marketing problems of a producer like Anaconda and those of a custom smelter like the American Refining Co. He replied, "Very briefly the situation is this: In the case of a producer carrying his operation through from mining to the finished metal and then selling it, he has the margin between the cost of production and whatever he sells his metal for. In the case of the custom smelter, the margin is the difference between what the smelter pays the miner for his metal and what the smelter is able to sell him, and, therefore, this situation which I think you wish explained arises: The custom smelter, having a very narrow margin and buying ore from day to day or metal from day to day, is not in a position to care for this metal. They must sell it, endeavor to sell it, as rapidly as they require it, irrespective of market conditions. Otherwise, if they went long or short, they would be speculating in the market and that is a thing they don't desire to do." Have you anything to add to Mr. Kelley's statement?

Mr. Brownell. That is a very excellent brief statement of the situation. Unless you have some particular point, I don't think it is necessary to add anything to it. I would like, however, to explain a little more the position that the custom smelter has in the trade. We are essentially the gathering point of the small producers of the country, mines which are too small to have their own smelters, either because the tonnage is small or because their financial ability to have plants of that size is too limited. The smelting business requires a mixture of ores. Generally people regard smelting as being a process of throwing so much ore or concentrate into a furnace, heating that furnace until it is reduced into a liquid state, in which the heavier

metals of lead or copper and gold and silver sink to the bottom. In a broad way, that is true, but in that process you would only save 40 or 50 percent of the total metals. In order to get a saving of the major part of the metal, you must have a neutral condition of the bath, neutral as between acid and alkali. If you have, for example, iron which is essentially alkaline, you must have silica which is essentially acid to flux the iron. In some districts some mines are all acid, practically; others are all alkaline. The smelter has to buy its ore with reference to the condition of the various customers who are sending their ores to it. And that means that if they don't get it, they would have to use, in the case of lack of silica, barren sand. In the case of lack of iron in the ore itself, they would have to use scrap iron. Without the custom smelter it would be impossible for the small mines of the country to operate. We have over 500 customers in the copper business—custom copper customers—in the United States alone, and we have slightly more than that in the lead business—in the lead custom business.

Our position, then, is that of the representative of the small mines, which in the aggregate, because they are less mechanized, employ more labor per ton of ore than do the larger mines.

They are perhaps more important in their communities, also, in many ways. The practice that we have in buying has grown up historically; and it is when the ore or concentrates arrive at the smelter that the metal content is ascertained. It would serve no good purpose to detail that process unless somebody wishes it. As soon as it is ascertained—agreed upon between the parties—we pay the miner for the metal content of his shipment at the price prevailing at the time of its arrival at the smelter.

Mr. Scoll. That is the E. and M. J. price?

Mr. Brownell. In the case of copper, it is the E. and M. J. price. In the case of lead, it is the A. S. and R. price. In the case of zinc, it is the St. Louis price for zinc. In the case of silver—domestic silver—it is the United States price; for foreign silver, it is the Handy & Harmon price that is established every day. From the total dollar value—100 percent of the metals thus ascertained—is deducted a certain amount of the metal which is part profit to us, and part to cover the metallurgical loss. We also deduct an agreed upon amount of money to cover the process of smelting, refining, and marketing, so the little miner gets his money on the arrival of the ore, practically, at the smelter.

Now in the case of copper it takes a little over 90 days (with us it averages about 100 days) between the time we pay for the copper at the smelter and the time it has been smelted, refined, transported to market, and sold.

We have to carry it during that time. If the price of copper has gone up, we would make a profit. If it has gone down, we would take a loss. But we find that we can not conduct our business in that way because the volume increases on the rising price and when a fall in price would occur, we would have a drop on a very large amount of metal and our total loss would be more than our total gain on the way up. So to avoid that possibility and to sell every day as far as we can what we pay that day for the tonnage received, we establish what we call our normal stock, which is in effect a reservoir which we visualize as being always there, although the water in the reservoir is

constantly changing. In the case of copper, we have 35,000 tons of copper in the United States—I am not speaking of what we allow for our foreign copper, simply for the United States—in this reservoir. We thus theoretically are able to sell every day from the outgoing finished product end of the reservoir what we buy at the intake end, thus protecting our manufacturing and fabricating profit. Theoretically that ought to be easy. It is not. It is almost impossible, owing to the irregularity with which metal (and I may confine myself for the present mostly to copper) is bought. You have heard about these buying waves. You have heard that in 1 month there will be sold as much as has been sold in 3, 4, 5, or 6 preceding months, and not only in 1 month but in a very few days of that month.

Now, our interest lies in maintaining a price level as high as we can and still sell at it. That is our duty to our customers, for one thing.

The CHAIRMAN. To your customers?

Mr. BROWNELL. Yes; they are the little miner who sells his ore. He regards us as his trustee to get for him the best price we can. He knows that he is selling on the market price, and he wants that price naturally to be high. We are selfishly interested in as high a price as possible, with evenness of operation, because the better the price, the more tonnage comes into our plants, thus reducing our cost and increasing the profit per ton because the tonnage increases.

We are also interested from the standpoint of the man who buys from us, the fabricator. The fabricator isn't so much interested in the price of copper as he is in regularity of that price, because he has his own problems of being able to sell his product at the price which he paid for the raw material. If, therefore, we were every day in this irregularity of selling—that is to say, if we can't sell copper at 12½ cents, we reduce the price to 12¼ cents, and if it doesn't move at 12¼ we reduce the price to 12 cents; and then if it did move to go up, we would help make the swings, then we would on the one hand lose the confidence of the miner who would feel that we were not trying to get him the best price, but were serving our own selfish interest only in trying to sell without making a loss. And on the other hand we would alienate the buyer of our finished copper because he doesn't want the price changed and he would rather buy from somebody who isn't always changing the price—wobbling around—than to buy from us. So that, within limits of increase in our inventory, we always try to lean over backward before we break the price, and I would like to emphasize that point because the custom smelter is kicked all around in the mineral row as being a price breaker. They don't realize how much we have done to maintain the price.

Senator KING. Is it not a fact that in Utah and Nevada and Idaho and Montana (but particularly Nevada and Utah) the small miner has been the beneficiary of these attempted policies of your smelter (and I am familiar with them) to equalize prices and to protect the small man, as a result of which a large part of your ores come from newly developed mines by the small mine owner. He may be working alone or have two or three partners with him in developing a little mining process and they know whenever they get the ore out they can sell it to your smelter.

Mr. BROWNELL. And they can get the money as soon as they get it to our smelter.

On the whole, just for a quick look—[referring to charts]——

Mr. Scoll (interposing). Which one are you taking first?

Mr. Brownell. This red one is copper.

COPPER AND LEAD INVENTORIES AND PRICES: INTERNATIONAL LEAD AGREEMENTS

Mr. Scoll. The chart that Mr. Brownell is going to refer to is a chart prepared by the American Smelting & Refining Co. entitled "Copper Accumulated in Excess of Working Inventory."

(The chart referred to was marked "Exhibit No. 2166" and is included in the appendix facing p. 13543.)

Mr. Brownell. I told you we have a volume of normal——

Mr. Scoll (interposing). Do you want to identify this one, too?

Mr. Brownell. This one in blue is lead. It is, "American Smelting & Refining Co., Domestic Lead Accumulated in Excess of Working Inventory."

The Chairman. That will be admitted.

(The chart referred to was marked "Exhibit No. 2167" and is included in the appendix facing p. 13543.)

The Chairman. These two exhibits may be admitted.

Mr. Brownell. These cover the same period of time from 1918 to 1939. I have not taken account of the increase of 5,000 tons above our normal stocks in either metal. We accumulate that before we make a determined break in the price unless all the surrounding conditions look very bad from a market standpoint.

Now you will see that on these three occasions, first at the end of the war, then in 1918 and 1922, we accumulated in copper 34,000 tons and in lead a maximum of 23,000 tons. We didn't accumulate again until the panic in 1931, when we accumulated a maximum of 55,000 tons of copper and 61,000 tons of lead, above our normal stock. Then we sold out and we didn't accumulate again until the 1937–1938 depression, when we accumulated 18,000 tons of copper and 25,000 tons of lead.

Now you will notice we accumulated more lead than we did copper, except immediately after the war. Why we didn't do it then, in my judgment, is that during the war the use of lead was not as important as the use of copper. The nations didn't buy as much; and for the further fact that in the case of lead what was used took the form of rifle bullets and was lost. In the case of copper the brass is all recovered so that the recovery from the brass and the larger stocks held by the nations made more acute the case of copper than of lead at the end of the war, and therefore we accumulated more copper than lead. In these other periods, we accumulated more lead than copper.

Senator King. Mr. Brownell, being a custom smelter, it is your duty, or at least you conceive it to be a duty, to take the ores that are delivered at your smelter, whether you have the surplus or not. You buy them; you have to do it. That encourages the small miner particularly to continue his operations, because he knows that no matter how large your surplus may be, you are bound to take his ore and pay him the price immediately?

Mr. Brownell. Absolutely.

Senator King. He doesn't wait until you are settled?

Mr. Brownell. We are under contract in probably 90 percent of the tonnage, and we are under a moral obligation because we advertise what is called an open contract price for anybody who ships in tonnage at any time that he will be given a certain printed rate.

Senator King. If a miner or a company from Nevada brought ores to your smelter, though you had large accumulations of copper or lead, you would take his ore, even though you held it for an indefinite period, and pay him immediately, as soon as it was sampled, that very day or the next day, and he would go away with the money in his pocket?

Mr. Brownell. Exactly. He generally stays around until he gets it, too.

The Chairman. Is he usually satisfied?

Mr. Brownell. Well, not always, of course

Mr. Scoll. May I interrupt you to ask a question at this point, and ask whether the situation you describe couldn't be relieved if the custom smelter had a hedging market?

Mr. Brownell. I would like to come to that a little later, may I, if it is equally agreeable to you? I want to point out two other things in connection with that chart. The first is that in the case of lead there was no combination under the Webb-Pomerene Act, no agreement of sale, no other sort of a collaboration, excepting only that like copper we have a statistical trade organization, the Lead Institute.

The Chairman. In other words there was no organization like the Copper Export Association or Copper Exporters, Inc.?

Mr. Brownell. Exactly.

The Chairman. And no combination or agreement among the producers of lead?

Mr. Brownell. Exactly. Lead has run its own course and in that connection I would like to show this other chart of mine which compares——

The Chairman (interposing). Before you refer to that chart, let me ask, was there any combination of lead producers abroad?

Mr. Brownell. Yes, there were two; one was for a period right after the war, 1921 to 1923, in regard to foreign production—Mexico, Australia, Canada, Germany, and France. The first one was a price-agreement arrangement in which the tonnage sold was apportioned among every member of the organization. The agreement was one made in accordance with the laws of Great Britain, drawn by counsel and filed with the Board of Trade and perfectly legitimate and lawful. That didn't work. An over-sold member who had sold more had to buy from somebody else, and then he had to use that brand when he resold it; and quarrels arose over that, over maintaining customers whom they had taught to like a particular brand. For example—we would say "The A. S. and R. brand is the best brand of lead, and we don't want to sell your brand," and the other fellow would say exactly the same thing.

The Chairman. And both were correct, probably?

Mr. Brownell. And both were probably correct. So the agreement broke down on that basis—lasted only about 18 months. No other attempt was made in lead until the summer of 1938, when we had a production agreement between practically the same people. the Australian, Canadian, Mexican, and South American.

The Chairman. Now did any American interest of any kind participate in either of these agreements?

Mr. Brownell. We participated in both of them for our Mexican production, and we stipulated in that, as they did in this copper pool, that it should not apply in any way to our production or position in the United States.

The Chairman. In other words in the United States you were of the opinion the law prohibited an agreement of that kind, whereas by statute abroad it was a perfectly legal procedure?

Mr. Brownell. Perfectly legal procedure.

The Chairman. And I understand you to say that though it was legal abroad it did not succeed?

Mr. Brownell. The first one did not succeed. The second one in my judgment was doing fine until the war came and that broke it; it was just getting on its legs and was a very, very promising child.

The Chairman. In what respect was it successful? In maintaining the price?

Mr. Brownell. No, it was an automatic reduction of production with a change in price. The arrangement was this; whenever on the London Metal Exchange—which is a free and open market—this may have some bearing on your later subject, Mr. Scoll—the price of lead, the average price of spot and future, remains below £15 for a period of 20 market days in succession, automatically we put in a 5 percent reduction of production and in lieu—if it were impossible, as it often was, to change our mine production, then we agreed to hold that amount of refined lead off of the market indefinitely, only to be sold when lead arose above £17 or £16—only a pound variation.

It was just smoothing out.

The Chairman. That operated by way of withholding the lead from the market?

Mr. Brownell. Withholding the lead from the market when the market price dropped below——

The Chairman. A certain level?

Mr. Brownell. A certain level—agreed upon level—and when it came above that level, with every increase of one pound we released 5 percent of previous reduction of production.

The Chairman. Then there was also an agreement to curtail production?

Mr. Brownell. In lieu of that withhold a resultant amount of lead from the market.

The Chairman. One or the other?

Mr. Brownell. One or the other.

The Chairman. So that the effect was the same, whichever procedure was followed by a particular producer.

Mr. Brownell. Exactly. It avoided changes of labor at the mine.

The Chairman. The purpose of this curtailment of production or withholding of lead from the market was to stabilize the price?

Mr. Brownell. Was to stabilize the price so that it would not go below this minimum level, and when it rose sufficiently above the £16 level, all restrictions would be off and it was a perfectly free and open market in production and everything else.

The Chairman. Then it didn't operate to raise the price unduly, is that your point?

Mr. Brownell. That is the point; Above this release level you came back to a state of nature, if you please, where there was no control whatever.

The CHAIRMAN. So as in the case of copper, your answer would be the same as that of Mr. Stannard, that it was an agreement to prevent destructive effects upon the industry rather than to produce exploitation of the consumer?

Mr. BROWNELL. Exactly.

Mr. O'CONNELL. It was the purpose of putting a floor below prices, but no ceiling?

Mr. BROWNELL. Putting a floor below prices, but no ceiling above prices, except that there would be a perfect freedom of production.

Mr. O'CONNELL. So long as the price remained above the floor?

Mr. BROWNELL. Yes.

The CHAIRMAN. This was all upset by the war?

Mr. BROWNELL. This was upset by the war, ended with the war in September. Now before I leave this question of the chart, I would like to show the similarity in the price of lead and in the price of copper for the period 1932 to the end of 1939.

Mr. SCOLL. Do you want to introduce the chart?

Mr. BROWNELL. I don't care.

The CHAIRMAN. If you are going to discuss it, let's get it in the record; I think it would be helpful.

Mr. SCOLL. Read the title.

Mr. BROWNELL. The title is "Comparison of Monthly Lead and Copper Prices." I should have put on there that they are the United States prices, E. and M. J. prices in both cases.

The CHAIRMAN. The exhibit will be admitted. You may proceed.

(The chart referred to was marked "Exhibit No. 2168" and appears in the appendix on p. 13544.)

Mr. BROWNELL. In a broad way the lower or black line is lead and the upper line is copper. This dull line, dotted red line, is the foreign price of copper, and the solid red line is the United States, E. and M. J. price of copper. Now you will notice that in a broad way while lead, of course, is a much cheaper metal, the swings in prices were very identical with the swings in prices in copper because both metals are affected by the same general economic condition, largely used in construction—prince and pauper occupations, both of them—and when times are good the price goes up, and when they are bad it falls quite rapidly.

The two things in this chart that I wish to call attention to, in view of the discussion here, is that there was, in lead, I venture to say, the most free and open market of any commodity I know of, and yet about the same types of plateaus occurred at about the same periods as occurred in the price of copper. Here, if I recollect, is one of these plateaus—I am leaving out the Code period and those things. Here is a plateau, and a corresponding plateau of about the same length in copper. Here is a plateau not quite as level as the one in copper, but substantially so.

Here at the end of the period which was pointed out, the plateau is almost identical, a little longer in lead than in copper. So that it seems to me, being equally interested in both metals—having as much to do with the marketing of one as with the other—that about the same conditions affect the level of prices with this one exception, the swings of marketing, of buying, are very much greater in copper than they are in lead. The buying waves in copper are very much greater than the buying waves in lead.

In my judgment, as was touched upon, that was due to these two causes; in copper they didn't swing any more than lead before 1929. Your chart on 1929, this famous exhibit that has been used more than any other——

The CHAIRMAN (interposing). "Exhibit No. 2100".[1]

Mr. BROWNELL. Shows a pretty stable level of copper before 1929; these variations have come afterward. That is due to the fact, in my judgment only, that in the case of lead we don't sell forward as they do in copper. The custom in copper is to sell for delivery after 3 calendar months; you sell in January and you don't have to take it and pay for it until April. In the extreme you have 4 months to play the market. In lead we only sell for delivery in the next calendar month, and we keep the fabricators closer in their buying. They haven't such a period of play of the market, and they are in closer touch with their immediate demand in the country.

The CHAIRMAN. Well, do the producers of lead to as great a degree as in copper also control fabricating units?

Mr. BROWNELL. No; nothing like the degree in copper.

The CHAIRMAN. Does that, in your judgment, have any bearing?

Mr. BROWNELL. We have only two small operations, one in Selby, San Francisco, and a small one at Perth Amboy; both of them use together less than 1,000 tons of lead a month.

The CHAIRMAN. Don't you think that has some bearing upon the situation?

Mr. BROWNELL. I think it has a very great bearing on the situation, and I think it partly—I was coming to that; the second cause is due in effect to that very situation. The fabricator's sales department always wants to get business and he wants to get it away from his competitor if he possibly can. In copper I think that practice has now been abandoned, however.

In copper these buying waves often occur when there is rumor or conditions are such that you have reason to believe from anybody acquainted with the business, that probably the price will go up pretty soon. Well, now, when it is going up somebody—one of the larger producers, Kennecott or Anaconda or Phelps Dodge, as the case may be—may make a statement that the price is going up unless somebody else puts it up. And they protect the buyer at the fabricator end for 24 hours, at the old price, so that if you announce today that the price tomorrow is going to be—announce today at 5 o'clock, tomorrow the price is going to be 12.75 instead of 12.50, but anybody who wants to buy tomorrow before it goes up will be taken care of at 12½, you obviously are going to have a big buying wave.

Dr. LUBIN. In other words, the producers create the buying waves?

Mr. BROWNELL. Let me distinguish. I think Kennecott does not. I think it has been more the other producers, and I don't think they have done it so much from the buying wave standpoint as from the desire to get at their fabricating end the largest possible volume of business.

The CHAIRMAN. I wonder if Mr. Stannard wants to make any comment?

Mr. STANNARD. I don't think I care to make any comment.

[1] Appendix p. 13384.

Mr. BROWNELL. That is what accentuates these buying waves and that is why it is so difficult for a custom smelter who cannot sell forward—we cannot sell forward. A producer has only at stake his cost of production—his money cost of production from a monetary standpoint. All he loses if the price later goes up is an additional profit, but we who buy our copper on the current price—if we sell 1 day's intake forward and the price has gone up a quarter of a cent in that day, have lost $5 a ton on that day's intake; and if it advances rapidly, why we would lose very much—lose our shirt, as the saying is—so that a custom smelter can never participate in a buying wave. We automatically have to stop when we have sold our intake up to that date, or we would be gambling with the future in a short position. I think that covers what I have to say. That is why we are more unpopular as a custom smelter in the copper business than we are in the lead business.

Mr. SCOLL. Mr. Brownell, now couldn't the custom smelters help themselves in the situation you have described if there were a, say, hedging market? I believe I asked that question before.

Mr. BROWNELL. Yes; the custom smelter would be able to sell on that hedging market. There is no doubt about that; but from the producer's standpoint, I think Mr. Stannard is correct. If I was solely a producer I would be opposed to a commodity market. As a custom smelter, there again the interests of a producer and a custom smelter are slightly different.

Mr. SCOLL. Well, now, have you—the A. S. & R.—been using the market established by the Commodity Exchange?

Mr. BROWNELL. Well, we do; yes, we do in this effort that I pointed out—not to break the price, because that alienates our mine customer on the one hand and our fabricator customer on the other end—highly undesirable in every way, from our own standpoint. We will go along during these dull periods and we will sell our copper whereever we can at a loss of from 1 to $5 a ton; as a rule 50 cents a ton will move the business. There is an old saying in the copper business that no friendship and no enmity whatever can stand against 25 cents a ton, either way, so we generally—rather than break the price—as long as we can sell on the Commodity Exchange without more than a loss of $1 a ton or thereabouts—in order to carry over one of these lulls, and at the same time not tie up so much money, we do it. We sell abroad. We sell very largely abroad because very often—even with this tariff—the price abroad has been higher than in the United States for nearly a quarter of the time since the tariff went into effect.

Mr. SCOLL. So in view of the position of the custom smelter that you have just described, why then did A. S. & R. join both the Copper Export Association and Copper Exporters, Incorporated?

Mr. BROWNELL. In the Copper Export Association, which was organized in 1918, our position was that of the largest selling agency in copper then existing in the United States. Anaconda at that time was second. We sold—we smelted and refined on what we call a toll basis; that is, we didn't buy their copper but we agreed to return from the ore within 90 days or 100 days, as the contract might read, the resulting refined electrolytic copper at a given point, at our seaboard refinery, Atlantic seaboard. Then we sold that copper for them; we sold for Utah, Rio Tinto, Cerro de Pasco, Tennessee Copper, Miami—Miami only for a very short time—and Mason Valley.

All told we were selling in 1918 about 60 percent of the copper production of the United States.

Our clients—that is, our toll customers—these copper companies, wanted to go into the Export Association and of course we had to go in with them, and particularly as at that time there had grown up in our selling agency a feeling that a custom smelter was not a proper agent for selling a producer's copper because his interest lay in selling more while a producer's interest lay in holding until he got a proper price.

As a result the selling agency was dissolved at the end of 1920, about 18 months after we went into the Export Association. We went in in the first instance at the request of these customers of ours, very largely, and also because we were a believer in principle and notwithstanding that we are a custom smelter, we tried to cooperate as much as we could for the welfare of the industry in which we are engaged.

At the end of 1920 we stayed in—the sales agency ended—and we stayed in, notwithstanding that our experience up to that time had shown that under the organization of the Association there were many dangers for a custom smelter. The Association prorated all sales in proportion to your offerings. The Association wouldn't let you sell except at the Association price, which would be fixed by others, and which might be a price at which we couldn't relieve ourselves. But 1921 came, when we were free. At that time in this accumulation we had borrowed $12,000,000 from the banks. The copper industry as a whole had borrowed about $60,000,000, trying to get over carrying the copper that was pushed upon them in that panic, or right after the war. But for the most of this, or a large part of it, about $40,000,000 was borrowed in the form of acceptances in banks. The banks, having reached their loaning ability, would accept a draft payable in 90 days. They would take that over to the discount corporation, which would endorse it; and then it was available for sale to the Federal Reserve Bank. The bank, the originating bank, got a quarter of 1 percent; the discount corporation got a quarter of 1 percent, and we paid a half of 1 percent over the discount rate of the Federal Reserve Bank.

Well, along there in early 1921 the Federal Reserve decided that it was in the interest of public policy to liquidate this large amount of loans based upon inventories in order that prices might seek their level more readily, I suppose. At any rate it caught us in a very bad position—the copper industry. And we didn't know what to do about it. We finally decided to adopt the plan that was described by Mr. Kelley under the Export Association. We took—each one of us our pro rata of 200,000 tons of copper at 10 cents a pound, $200 a ton.

Mr. Scoll. If I may interrupt you, Mr. Brownell—for just a moment—then you resigned from the Association when it no longer served your purposes?

Mr. Brownell. Exactly.

Mr. Scoll. Now I would like to ask you just one question to clear the record on a point Mr. Kelley covered, and then I will be through. In order to maintain the 18-cent price through the panic of October in 1929 did any of the primary producers purchase copper from the A. S. & R.?

Mr. BROWNELL. Not in 1929.

Mr. SCOLL. Did they at any time during that period?

Mr. BROWNELL. In 1928 and intervals prior to that.

Mr. SCOLL. When in 1928?

Mr. BROWNELL. In 1928 we sold to United Metals Selling Co., which is an Anaconda Company, 9,875 tons of copper. Well, I was wrong—in 1929 we sold them 2,500 tons of copper, but it was before the 18-cent price.

Mr. SCOLL. Did those sales have anything to do with the maintenance of that price?

Mr. BROWNELL. Oh, no; they were made before the 18-cent price.

Mr. SCOLL. Now after the panic in October 1929, there was an arrangement, I believe, whereby the primary producers agreed to assist the custom smelters in disposing of copper which they had on their hands. Is that correct?

Mr. BROWNELL. Yes.

Mr. SCOLL. And did that apply to domestic sales?

Mr. BROWNELL. No.

Mr. SCOLL. Only to foreign sales?

Mr. BROWNELL. Only to foreign sales.

Mr. SCOLL. Now you have described the arrangement briefly.

Mr. BROWNELL. In the organization of Copper Exporters we cured the defects of the old Association when we went into it; namely, under the Exporters anybody could make a special sale. If he didn't want—if the custom smelters, for example, didn't want to hold for the price of the others, we could notify them that we had so much copper to sell at something below their price.

Mr. SCOLL. I believe Mr. Kelley explained that.

Mr. BROWNELL. And that relieved us from the difficulty of the Copper Export Association. Well, now everything went along very well. The 1929 sales of copper were tremendous. There had been a buying wave in August or September, and when I got back here—I had been on a trip around the plants in September—the latter part of that month, I found that there had been a great lull in buying and the fabricating plants in which we were interested reported that there had been a great lull in buying so far as they were concerned. The outstanding forward sales at the 18-cent level were very large. You have got the figures.

Mr. SCOLL. I believe that was covered, too, Mr. Brownell, if I may interrupt you.

Mr. BROWNELL. Surely.

Mr. SCOLL. Our time is rather short, and so I would just like you to confine yourself, if you will, to a description of just how the preferred participations in the export sales worked.

Mr. BROWNELL. In order to prevent a break-up in the general situation at that time by reducing the price which we otherwise would have done in all probability, the Copper Exporters adopted article IV. Article IV permitted the custom smelters to make any offerings of unsold copper to the Copper Exporters. Thereupon any past sales at the same price would be reallocated, and proportionately from each member of the association would be taken enough of his sales and given to the custom smelter to take care of that offering.

Mr. Scoll. So that the others merely postponed their sales and let the custom smelters always have first choice.

Mr. Brownell. Had the first choice.

Mr. Scoll. Now after April 1930 did C. E. I. endeavor to secure the cooperation of the custom smelters in not forcing down the official price by permitting them to sell at prices below the official price?

Mr. Brownell (interposing). No; after the close of that level which was maintained, as Mr. Kelley pointed out, much longer than was anticipated at the request of the Government—when it ended in May 1930 section IV was repealed and we came back to the origin where we could make special sales—offer at a lower price.

Mr. Scoll. The same as anybody else.

Mr. Brownell. The same as anybody else.

Mr. Scoll. But they never held the umbrella over you.

Mr. Brownell. No; they didn't hold the umbrella over us any more except for that period.

Mr. Scoll. Thank you, Mr. Brownell. That is all I have.

The Chairman. Do any members of the committee desire to address any more questions to Mr. Brownell? Have you any further comments to make, Mr. Brownell? We are very much indebted to you.

Mr. Brownell. I appreciate the courtesy of the counsel and of yourself.

The Chairman. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 5:10 p. m., an adjournment was taken until Friday, January 19, 1940, at 10:30 a. m.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

FRIDAY, JANUARY 19, 1940

United States Senate,
Temporary National Economic Committee,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Thursday, January 18, 1940, in the Caucus Room, Senate Office Building, the chairman, Senator Joseph C. O'Mahoney, presiding.

Present: Senator O'Mahoney, chairman; Representatives Sumners and Williams; Messrs. Henderson, Davis, Ferguson, O'Connell, Pike, and Brackett.

Present also: Willis J. Ballinger and Ellen L. Love, Federal Trade Commission; M. Quinn Shaughnessy, Securities and Exchange Commission; Walter A. Janssen, Department of Commerce; Theodore J. Kreps, economic adviser, Samuel Moment, economic analyst and David E. Scoll, counsel to the committee.

The Chairman. The committee will please come to order.

Mr. Scoll, are you ready to proceed?

Mr. Scoll. Yes; I am, sir.

The Chairman. Who is the first witness?

Mr. Scoll. The witness this morning is Mr. Arthur Notman. Will you take the stand please, Mr. Notman?

The Chairman. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth and nothing but the truth, so help you God?

Mr. Notman. I do.

The Chairman. Please be seated.

TESTIMONY OF ARTHUR NOTMAN, MINING ENGINEER AND AUTHORITY ON COPPER, NEW YORK, N. Y.[1]

Mr. Scoll. Before calling on Mr. Notman, I might state for the information of the committee that Mr. Notman is an outstanding expert on mining and mining engineering and is a consulting engineer in New York City. He will discuss certain phases of the testimony which has been offered by Mr. Kelley, Mr. Brownell, and Mr. Stannard. He has appeared here voluntarily, and the staff, I might add, is indebted to him for his assistance in explaining some of the technical phases of the study that we have made.

Mr. Notman, will you give the reporter your name and address?

Mr. Notman. Arthur Notman, 40 Wall Street, New York.

Mr. Scoll. And will you tell the committee briefly of your mining and consulting experience?

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[1] In connection with Mr. Notman's testimony see letter from Cornelius F. Kelley, president of Anaconda Copper Mining Co. to the committee, under date of March 6, 1940, which appears in the appendix on p. 13576.

Mr. NOTMAN. Well, for 15 years, starting with 1908, I was in the employ of the Phelps-Dodge Corporation in Arizona, and I occupied a number of unimportant positions with that company. Then I worked as general superintendent of their mining operations in Bisbee, Ariz. I left them in 1923 and opened a consulting office in New York, and have been engaged in consulting practice in New York since that time. Most of my work has been on the investment side of the industry and as a consultant, although I have done quite a little consulting work on operating.

Mr. SCOLL. You have written numerous articles on copper, have you not?

Mr. NOTMAN. Yes.

Mr. SCOLL. Would you like to name one or two for the committee?

Mr. NOTMAN. Well, I prepared the section on copper for the last edition of the Encyclopedia Britannica and have recently prepared one for the new issue which is coming out shortly. I also wrote the articles in Peel's Mining Handbook, second edition, on mining costs and mining organization, and there again, I have revised those articles for the new issue about to come out. In 1933 the International Geological Congress, which holds quadrennial meetings, met in this country, here in Washington. The late Dr. Waldemar Lindgren, formerly of the United States Geological Survey—in more recent years professor of economic geology at the Massachusetts Institute of Technology—was president of that Congress during that meeting. It had been customary for the Congress for several previous meetings to appoint committees to prepare volumes on certain world natural resources. For example, they had prepared one on gold resources of the world, one on petroleum, one on coal, and one on iron ores; and at the 1933 meeting it was decided to get out a volume on the copper resources of the world, and a committee was appointed to do that, of which I was chairman. Then, in addition to a series of carefully prepared geological descriptions of the important copper occurrences in the world, we included sections on the economic history of the industry and world trade in the industry. I, as chairman, prepared that section on the economic history of the industry. I might say that having engaged throughout my connection with operations in the copper industry and having made a continuing study since my opening of a consulting office of that industry, the committee felt that I should undertake that particular section. I think that covers it.

Mr. SCOLL. Now, you held a position with the N. R. A., did you not, Mr. Notman?

Mr. NOTMAN. Yes; I was asked by Dr. Alexander Sachs, who was the chief of the Research and Planning Division of the N. R. A., to come to Washington and act as one of his assistants on the nonferrous metal industries, and during that time I sat in on a great many code hearings in copper, lead, and zinc, and other nonferrous metals, and I was engaged with the N. R. A., I think, in all, about 5 months.

Mr. SCOLL. And you resigned before the N. R. A. ended, did you not?

Mr. NOTMAN. Well, I am not sure whether I resigned or was fired, but I left.

Mr. SCOLL. Why did you leave?

Mr. NOTMAN. Well, my economic views didn't seem to be in favor.

Mr. Scoll. Well, we will go into that a little later. You are in close contact with the industry today, are you not?

Mr. Notman. Yes.

Mr. Scoll. Now, in your studies have you made a study of investment and income from copper production?

Mr. Notman. Yes; a great deal of my attention has been directed toward such study.

Mr. Scoll. Well, what conclusions have you drawn with respect to profits from copper production?

PROFITS AND COSTS IN THE COPPER INDUSTRY

Mr. Notman. Well, primarily this, that the one stable element has been the margin of profit as measured over any period of time sufficient to iron out some of the peaks and hollows. My method of measuring profits is one that was first developed and advanced by Mr. James Ralph Finlay, who was regarded, I think, by the profession as the outstanding authority on the economics of mining. His book, The Cost of Mining, which has had three editions, is really the standard reference book for all mining engineers on that subject. He developed the idea that the one sure way of measuring profits was to take that portion of the gross income which was actually returned to creditors—that is, holders of bonds and shareholders in the undertaking. In other words, if you take the gross income received from sales of product and subtract from that the amount distributed in bond interest and dividends, the remainder is really your true cost. Of course, variations from year to year due to capital expenditures may upset that measuring stick for the time being, but over a period of years, those things are ironed out and you are not relying on the estimates of earnings made by the companies themselves. You are not dependent on their estimates of what proper depreciation charges shall be written off, and you come down to the actual fact as to how much profit was earned and received by the shareholders of the company.

Mr. Scoll. And, of course, that method eliminates the necessity of making audits of the records of individual producers, does it not?

Mr. Notman. Entirely. You merely have to use their published income statements and balance sheets.

Mr. Scoll. Now, what about depletion? I didn't hear you mention depletion as one of the elements.

Mr. Notman. Prior to the enactment of the income-tax law, there was never any reference to depletion. An investor in a mining undertaking knew that in the nature of things, an ore body was exhausted and all that he was concerned with was in securing the best information he could as to the probable life of those resources, and he did his own depleting. If he bought a share of stock, that was the capital sum which he had to be sure would be returned over the life of the investment, plus his income; and so far as comparative costs, or perhaps to put it more pointedly, competitive costs are concerned, depletion does not enter into the picture.

Mr. Scoll. Are you implying then that mine operators did not think about depletion until the income-tax law was passed?

Mr. Notman. Well, I wouldn't put it exactly like that. They were aware of the fact that mainly because they were able to earn 10

percent, say, this year, the real value of that income depended upon how long it would last, but they saw no reason for putting any such estimates on income statements or balance sheets. It is true that any industry exhausting a natural resource has a limited life, and part of all its annual returns to stockholders are a return of capital. In that respect, they differ from so-called self-perpetuating industries.

Mr. SCOLL. Now, have you made any calculations on the basis of the Lindsay formula as to the cost of production for individual copper companies in the United States and in some of the foreign countries?

Mr. NOTMAN. If I may make a correction for the record a minute, the engineer's name is Finlay, not Lindsay.

Mr. SCOLL. I beg your pardon.

Mr. NOTMAN. Yes, I have prepared such comparisons and a number of them are included in this section of the copper resources volume. I have a reprint here.

Mr. SCOLL. Excuse me, but before you read that, have you read the title of the publication into the record?

Mr. NOTMAN. This is entitled, "The Economic History of the Copper Industry; Estimated World Reserve of Copper," from "Copper Resources of the World"; Sixteenth International Geological Congress, Washington, 1933.

Mr. SCOLL. And what you are going to read are the costs per pound of producing copper for individual copper companies?

Mr. NOTMAN. Over periods prior to 1933. I would like to say, of course, that these figures are subject to correction, to be brought up to date, and there has been a continual reduction in costs since 1932.

Representative SUMNERS. May I ask one question? Is there anything to indicate that the improvement in production may utilize low-grade ore that heretofore has been regarded as not—I want to use a big word but I can't think of it. Anyhow, you can't get enough copper out of it to pay for its working.

Mr. NOTMAN. Oh, yes, but at a price.

The VICE CHAIRMAN. Sir?

Mr. NOTMAN. At a price.

The VICE CHAIRMAN. What do you mean by "at a price"?

Mr. NOTMAN. Well, copper that could be produced at 10 cents a pound—say, 10 years ago—at a 10-cent price would show no profit and therefore it would not be produced.

The VICE CHAIRMAN. Well, it didn't show any profit when you could produce 10-cent copper at 10-cent prices, did it?

Mr. NOTMAN. No.

The VICE CHAIRMAN. Now, my question is—is there anything to indicate that the method of production has so improved that you could produce that 10-cent copper—copper that would be worth 10 cents—for 8 cents?

Mr. NOTMAN. Yes.

Mr. WILLIAMS. And if that is done, would it add largely to the copper resources of the country?

Mr. NOTMAN. Very largely; it has.

Mr. WILLIAMS. You have a great deal of low-grade ore that heretofore has been regarded as unmarketable that is in process of being worked?

Mr. NOTMAN. Yes, sir.

Mr. Scoll. I believe you were going to read a list of costs, Mr. Notman?

Mr. Notman. Well, I have a number of the important producers here with earnings calculated according to the method that I have outlined to the committee, for the period from 1926 to 1932. The companies included are Anaconda, their Butte operations——

Mr. Scoll (interposing). Excuse me, Mr. Notman, but are you talking now about earnings or about costs?

Mr. Notman. I said earnings but I have both figures here in the table.

Mr. Scoll. Well, why don't you give them both?

Mr. Notman. Do you want me to read the list of companies or just select certain ones, or how would you like me to reply to that?

Mr. Scoll. Well, I think the best thing to do would be to read the list and put them in—all of them.

Mr. Notman. Anaconda (Butte operations alone); Andes; Chile; Greene; Cananea; Inspiration; Calumet and Hecla; Cerro de Pasco; Copper Range; Kennecott, including Utah, Braden, and Alaska; Nevada Consolidated—I might say at that time Nevada Consolidated had not been completely absorbed by the Kennecott Corporation and was still an independent entity—Mother Lode; Phelps-Dodge; Granby; Magma; Miami; Mohawk; Old Dominion; United Verde Extension; Noranda; Hudson Bay; Katanga.

The average selling price received by those companies over the years from 1926 to 1932, assuming that they received approximately the average E. and M. J. quotation for those years—this of course is subject to some correction because certain companies might have sold more copper in a period when the price was higher than the E. and M. J. average or they might have sold some more when the price was lower.

Mr. Scoll. Would that result in a material difference?

Mr. Notman. Not over a 6-year period, in my judgment. I have had occasion at times to check on such calculations and found that there was very little material error. During those years they received an average price of 13.19 cents per pound.

Mr. Scoll. Now will you give the——

Mr. Notman (interposing). The earnings as measured by the aggregate interest and dividends paid out plus or minus any increase or decrease in the net current assets during the period, plus any cash investments in earnings and increased facilities to produce, or in the securities of other copper-producing companies, less any interest and dividends received from other copper producing companies, and any cash received from the sale of new capital issues—that is the basis on which the earnings were set up. Profits from the production of other metals, as gold, silver, lead, and zinc, were all credited to the cost of copper. Similarly, profits from custom smelting, refining, and manufacturing enjoyed by certain of the companies have also been credited to the cost of copper.

Mr. Scoll. So that the result you get is as close as you can possibly come to figuring the true cost of the copper..

Mr. Notman. Yes. And I would like to add that where the investment in such other activities—such other facilities—has been wise, it improved the competing power of that unit of the industry; where un-

wise it proved a handicap. The results from such additional ventures are not different in kind from those inherent in higher copper or higher precious metal contents of their ores than those of their competitors.

Mr. SCOLL. Then what do you finally arrive at for the cost per pound for those companies and their earnings per pound?

Mr. NOTMAN. The average cost of the whole group was 9.63 cents per pound for that period.

The VICE CHAIRMAN. Is there anything to indicate that they were carrying a considerable load of unprofitable production?

Mr. NOTMAN. The only company of the group named who showed a deficit for that period was the Old Dominion Co., at Globe, Ariz., which was about exhausted.

The VICE CHAIRMAN. About exhausted?

Mr. NOTMAN. Yes; exhausted so far as profitable ores were concerned.

The VICE CHAIRMAN. Then it was just a question of continuing to operate as scrap?

Mr. NOTMAN. Yes.

Mr. SCOLL. Can you tell from that which are the low and which are the high-cost producers?

Mr. NOTMAN. Yes.

Mr. SCOLL. Which were which?

Mr. NOTMAN. On that basis——

Mr. SCOLL. And you might amplify it by giving the figures.

Mr. NOTMAN. The Noranda Co. in Canada shows the lowest cost per pound.

Mr. SCOLL. What is that figure?

Mr. NOTMAN. 5.22 cents.

The Vice CHAIRMAN. May I ask one other question to develop what I have in mind? Was this cost of production to which you have just referred due to any degree to an antiquated machinery or method of extracting the copper?

Mr. NOTMAN. I am not sure that I understand the question.

The Vice CHAIRMAN. If that company had had an up-to-date plant for procuring the raw material and converting it into copper, would it have been probable that they would have a lower per ton cost of working the ore? Does that make it clear?

Mr. NOTMAN. I think I understand; yes. I think it fair to say that none of these companies were handicapped during this period that I speak of by the use of obsolete equipment or obsolete methods.

The CHAIRMAN. May I ask you again to tell us what factors you have taken into consideration in determining the cost?

Mr. NOTMAN. We start with the gross income received from the sale of the product. From that we deduct the gross amount of interest and dividends distributed by the company, plus or minus any increase in net current assets over the period. In other words, if they did not distribute all their earnings as dividends, presumably if they had made no capital investments, their net current assets would have increased; if they had made capital expenditures the net current assets might have decreased; so that we adjust the distributions to the net current asset position—change in the position—over the period.

Representative WILLIAMS. In that connection, do you take into consideration the surplus—does that include the undistributed profits?

Mr. NOTMAN. Yes.

Representative WILLIAMS. And the surplus that may be set aside—you call that current assets?

Mr. NOTMAN. Yes. And it is adjusted to any capital expenditures made or any capital received from the sale of additional securities?

Mr. PIKE. Mr. Notman, in mining accounting you can't take surpluses necessarily as a net current asset of capital accounts of the mines; it is strange, anyway. Net current assets have no necessary relation to surplus. You know mines with deficit, in their capital account that have large net current assets.

Mr. NOTMAN. Well, I subscribe to that correction, Mr. Pike. I might say, perhaps to illuminate the matter a little more, that in general the formula used was much simpler than that I have described. In other words, we confine ourselves purely to the distributions of interest and dividends over a period of years.

The CHAIRMAN. The success of the formula which you have described would depend entirely, would it not, upon the assumption that the sale price was large enough to cover the actual cost? In other words, if a product were sold at less than cost you couldn't determine what the cost of production was by beginning with the receipts from sales.

Mr. NOTMAN. I think I can make that plain. In the case of the Old Dominion they received 13.3 cents average price, but by the method used their costs were 14.3 cents. In other words, they accumulated a deficit over the period and their actual costs were above the price. That happens to be the only one in the group in that particular period of years.

The CHAIRMAN. This is a formula which you use for the purpose of determining costs without having access to the actual expenditures.

Mr. NOTMAN. That is right.

The CHAIRMAN. In the mining and production of the ore?

Mr. NOTMAN. That is right. We have access to their published balance sheets and income statements.

The CHAIRMAN. So that you are defining to us a formula which is used to determine from published statistics what the cost must have been.

Mr. NOTMAN. Yes.

The CHAIRMAN. It is a deductive process.

Mr. NOTMAN. Right.

I have a similar table here covering a large group of companies from the close of 1921 to the close of 1932. The companies considered in this group covered North and South America and included Anaconda, Andes, Chile ——

Mr. SCOLL (interposing.) Excuse me, may I interrupt for a moment? If you have the companies there individually listed do you also have the individual costs for each company per pound?

Mr. NOTMAN. Yes.

Mr. SCOLL. Or is this just a group?

Mr. NOTMAN. Not in the table I have already referred to, they are there individually. In the table I was about to refer to they are in the aggregate.

Mr. SCOLL. Before you read the aggregate, could you read the individual costs and earnings if you have them for the companies for that period so that the committee would have some information con-

cerning what the relative cost of production is for the various companies that are engaged in copper mining?

Mr. NOTMAN. Would you like to have me read them all, or just examples of high and low?

Mr. SCOLL. How many are there?

Mr. NOTMAN. About eight.

Mr. SCOLL. Why don't you read them all?

Mr. NOTMAN. Perhaps I might add this is table 1 on page 26 of this pamphlet.[1] Anaconda, Butte operations, cost 9.98 cents. Andes, 10.05. Chile, 8.13. Greene Cananea 10.35. Inspiration 11.3. Calumet and Hecla 10.62. Cerro de Pasco 9.73. Copper Range 11.97. Kennecott, including Utah, Braden, and their Alaska operations, 7.86. Nevada Consolidated 10.18. Mother Lode 8.57. Phelps-Dodge 10.63. Granby 9.69. Magma 8.89. Miami 11.94. Mohawk 8.40. It is only fair to say that Mohawk has now ceased operations. Old Dominion, 13.32. That has also ceased. United Verde Extension, which we have just finished up, 8.52. An average for those companies of 9.58.

Mr. SCOLL. Now have you got the foreign companies there?

Mr. NOTMAN. I have Noranda, Hudson Bay, and Katanga, but with this explanation, that Hudson Bay was only really just started and the period is too short to be representative. Noranda, 5.22. Katanga, 11.27.

Mr. SCOLL. What period was this?

Mr. NOTMAN. Period from 1926 to 1932, inclusive.

Mr. SCOLL. Have you anything more to add to the discussion of costs before we proceed to further points?

Mr. NOTMAN. I was going to cover other matters later. I think that is all.

Representative WILLIAMS. Have you anything later than 1932 with reference to the costs?

Mr. NOTMAN. Only in individual cases.

Representative WILLIAMS. How does it compare with this period from 1926 to 1932 in general?

Mr. NOTMAN. Substantially lower.

Representative WILLIAMS. How much? Have you got any idea? Has your study led you to conclude how much percent lower it is than it was during that period?

Mr. NOTMAN. Probably between a cent and a half to 2 cents a pound.

Representative WILLIAMS. It would average, you think, lower; the cost of production according to your method of computation would be a cent and a half to 2 cents per pound lower average from 1932 down to the present time?

Mr. NOTMAN. Yes. There are a number of high-cost units that have gone out and there has been a very marked improvement in the larger operations.

Mr. PIKE. You mean for the same mines that you are covering and not covering new mines?

Mr. NOTMAN. Yes. In addition to that, as Mr. Pike's question suggests, there has been the very large group of African Rhodesian producers who belong in the low-cost class that have come in, so that

[1] "Copper Resources of the World." The table is shown in "Exhibit No. 2169-A" appendix, p. 13546, at p. 13549.

the average cost of producing of those units of the industry now supplying the copper of the world is definitely lower in cost.

The CHAIRMAN. To what is that production cost to be attributed?

Mr. NOTMAN. To technological improvements in mining methods, equipment, and metallurgy.

The CHAIRMAN. Would there be any dispute about your conclusions?

Mr. NOTMAN. There might well be.

The CHAIRMAN. Do you think they would be accepted generally in the industry?

Mr. NOTMAN. Well, it is not for me to say, Mr. Chairman. I think they would.

The CHAIRMAN. Well, you have a pretty good notion, I would think, as to whether or not other experts would disagree with your conclusions.

Mr. NOTMAN. I don't think seriously.

Representative WILLIAMS. From the samples you gave of the cost of foreign production during the period of 1926 to 1932 there isn't a great material difference between the cost of production abroad and at home.

Mr. NOTMAN. With the possible exception of Noranda, and I haven't included the largest Canadian producer, which is the International Nickel Co., because of the difficulty of separating—dividing—the costs between their nickel production and their copper production.

Representative WILLIAMS. What have your studies led you to conclude with reference to the difference in cost between domestic and foreign copper during the last 8 years from 1932 to 1940.

Mr. NOTMAN. There are no domestic units that can show as low a cost as that of Noranda. There are domestic units that are on all fours with the Chilean and Rhodesian producers. Does that answer your question?

Representative WILLIAMS. Well, I was wondering if you could draw a conclusion with any degree of accuracy as to the average cost of foreign production as compared with domestic production. You understand—not any one particular company—but the general average as you have drawn it during the period from '26 to '32.

Mr. NOTMAN. Of course it depends largely on what volume of output you are basing your average on. If you are dealing with relatively small volume produced mainly by the low cost producers, there is very little difference. If you are dealing with a large volume which must necessarily include a lot of high cost ones, then there may be a substantial difference.

Representative WILLIAMS. What method did you use in arriving at your average in the figure that you gave here?

Mr. NOTMAN. I took the actual production figures for those companies for the years included in the period.

Representative WILLIAMS. Why not use that same test during this latter period?

Mr. NOTMAN. That could be done.

Representative WILLIAMS. That is what I am asking, whether or not you have done that.

Mr. NOTMAN. No; I have not——

Representative WILLIAMS (interposing). Sufficient to give us the benefit of your judgment on it?

Mr. NOTMAN. I haven't got the figures here, but in my opinion there would be some material difference in the cost. The foreign production would be at a definitely lower cost. There are very few high cost units in the foreign group.

Representative WILLIAMS. You don't care to hazard a suggestion as to what that difference would be?

Mr. NOTMAN. Well, I would say that it probably lay between 1 and 2 cents a pound.

Mr. SHAUGHNESSY. Mr. Notman, under your method do you charge off development at the beginning or ratably over the life of the mine?

Mr. NOTMAN. Under this method one does not have to consider where the money was spent or what it was spent for.

Mr. SHAUGHNESSY. I was wondering at the rather high cost for Chile and Andes copper.

I mean they wouldn't be substantially less today than they were then?

Mr. NOTMAN. Oh, very much.

Mr. SHAUGHNESSY. They would be?

Mr. NOTMAN. Yes.

Mr. SHAUGHNESSY. As much as 3 or 4 cents?

Mr. NOTMAN. Yes.

Mr. SHAUGHNESSY. So the foreign production today might be considerably cheaper as far as Chile and Andes are concerned?

Mr. NOTMAN. Yes; but in answer to the Congressman's question I was referring to my present opinion as to current costs.

Mr. SHAUGHNESSY. I see.

Mr. SCOLL. In other words, Mr. Notman, there is a reasonable basis upon which you can determine the cost of producing copper today, and using that basis the trend of cost has been downward. Does that summarize it?

Mr. NOTMAN. In my judgment, yes.

Mr. SCOLL. You mentioned technological improvement, and that has resulted, has it not, in a more economical production of copper?

Mr. NOTMAN. Oh, yes; and it has brought about serious changes in volume of employment.

The VICE CHAIRMAN. I would like to ask something on that.

Mr. NOTMAN. For example, according to the Bureau of Labor Statistics the copper mines, mills, and smelting plants in the United States employed about 45,000 men in 1929 as compared with 13,000 in 1932. The increase in employment from 1919 to 1929 was less than 2 percent, while production increased 70 percent. This affords some measure of the technological advances in the industry which have been a major factor in increasing the known reserves of metal in the ground by making available for profitable extraction lower-grade material. That tendency has continued since '29. To illustrate: The collapse of prices after the World War, for example—and that is true of the collapse of prices in the late depression—stressed the search for cheaper metals. Mr. A. B. Parsons, secretary of the American Institute of Mining and Metallurgical Engineers, published a book, I think about 1931, entitled "The Porphyry Coppers." In that book Parsons cites the facts that the Utah Copper Co., a Kennecott

unit, produced copper for about 6¼ cents a pound in 1928 from ores yielding only 17 pounds to the ton, and that if the company had been compelled to use the equipment and methods available to it in 1916 while carrying increased wages, cost of supplies, and taxes of 1928, the copper would have cost 12¼ cents instead of 6½ cents. I think that answers your question.

The VICE CHAIRMAN. I believe so, yes.

Representative WILLIAMS. What about bringing that down to date? It seems to me that I am more concerned with these figures since 1930.

Mr. NOTMAN. There has been still further improvement. I haven't made any recent calculations, but I can confidently say that there has been substantial improvement.

Representative WILLIAMS. The cost of production has gradually decreased, as you have already stated. Is it also true that the number of employed has decreased in the mining business?

Mr. NOTMAN. I am not so sure about that phase of it, but I would say definitely that it had at least held its own—that is, the production per man employed is certainly no lower than it was in the period that we have been discussing.

Representative WILLIAMS. But you think there are as many men employed in the mining industry as a whole in, we will say, 1939, as there were in 1929?

Mr. NOTMAN. Oh, no; there are not.

Representative WILLIAMS. What would be the difference?

Mr. NOTMAN. I couldn't tell you offhand. The Bureau of Labor Statistics undoubtedly has up-to-date figures on that.

Representative WILLIAMS. Has there been an increase in the output in the United States?

Mr. NOTMAN. No; we have not gotten back to the 1929 figures.

Representative WILLIAMS. Of course there has been a relative decrease compared with foreign production, but the United States has actually decreased in production, has it?

Mr. NOTMAN. If the committee will permit me I would like to refer to the American Bureau of Metal Statistics figures for that.

Representative WILLIAMS. There isn't any question about the evidence already before this committee that there has been a relative decrease in domestic production as compared with foreign production during the last 10 years, but as to whether there has been an actual decrease in production?

Mr. NOTMAN. At the peak of 1919 the United States produced in excess of 1,000,000 short tons; the highest figure reached since that year was in 1937 when we produced 878,000 short tons.

Mr. O'CONNELL. In answer to Congressman Sumners' question I understood you to give some figures as to the relative increase in productivity per unit of labor. Did you do that? If you did I would like to have you repeat it and tell me the period.

Mr. NOTMAN. I answered specifically for the period 1919 to '29, and my estimate is that there may have been some further improvement in efficiency; there certainly has been no falling off.

Mr. O'CONNELL. During the period 1919 to 1929, I understood you to say that there was a 2-percent increase in the volume of employment.

Mr. NOTMAN. Yes.

Mr. O'Connell. And a 70-percent increase in production?

Mr. Notman. Yes.

Mr. O'Connell. And that would be explained by technological improvement and would indicate that per unit of copper produced substantially less labor was required in '29.

Mr. Notman. Yes; mainly because of the active expansion of the operations of the so-called porphyries, which are highly mechanized.

Mr. O'Connell. What was that word again?

Mr. Notman. So-called porphyry coppers. Those are such companies as are exploiting large low-grade ore bodies, which permit of large scale operation with steam shovels in the case of open cut mines and all the modern equipment for such undertakings.

The Vice Chairman. May I ask this question? Are these technological and scientific improvements to any degree recovering copper which under former processes went out into the dump heap?

Mr. Notman. Oh, yes. Most of it, however, never even reached the dump heap; it wasn't touched; it was too low a grade even to attempt to use.

The Vice Chairman. That wasn't what I was asking about particularly, though. It was whether or not under the old processes you failed to recover copper in the ore worked which now you are able to recover.

Mr. Notman. That is true, but the only large scale operations of that sort, if my memory serves me rightly, now in existence in this country are the recovery of the copper and the tailings of the Michigan companies which were accumulated years ago. At the time that I was actively in charge of operations in Bisbee, for example, we were still digging up old slags that had been produced in the nineties; and it was about the most profitable ore we had. There was a good deal of that slag that ran as high as 3 percent.

Mr. Scoll. Mr. Notman, Mr. Kelley stated in his testimony that—

> The increase in recovery of metal content from the ore would reduce the cost approximately three cents a pound on the average. Now the price has not increased. On the contrary the price has likewise on the average decreased, so that the consuming public has received the benefit of the technological advance.

Can you illustrate by any evidence which you have at hand or are familiar with whether the decrease in the price of electrolytic copper has been passed on in the selling price of the articles that are made from copper, the final articles of copper that are used in the trade, such as plumbing fixtures, and so on?

Mr. Notman. Well, that question I have prepared some data on and I don't think that it has been referred to by any of the previous witnesses. Obviously nobody uses electrolytic copper as such, and the price of electrolytic copper has no bearing on what the consumer, who is the man who uses copper wire or copper sheets or brass sheets or copper tubing, pays for his material.

Mr. Scoll. Have you prepared a table to show the comparison of the electrolytic prices and the prices of the final fabricated copper?

Mr. Notman. I have, covering only three forms of fabricated copper.

The Vice Chairman. Mr. Scoll, will you pardon me just a moment? Have you developed whether or not the producers of the raw copper to any degree follow through the processes of the factory and into

the market as a finished commodity? I mean from the point of ownership and depletion.

Mr. SCOLL. Yes; we have covered that.

The VICE CHAIRMAN. Then I will try to get it from the record.

Representative WILLIAMS. There is one thing I don't understand. Did I understand you to say there was no relation at all between the cost of copper as such and the cost of the finished products?

Mr. NOTMAN. Perhaps that is a little subject to——

Representative WILLIAMS (interposing). That is a rather remarkable statement, if that is true.

Mr. NOTMAN. What I mean to say is that the ultimate consumer of copper does not buy electrolytic copper. He buys fabricated product, and his cost depends upon what prices are quoted on the fabricated product, and not on the so-called electrolytic copper.

Representative WILLIAMS. I think I understand that, but there is undoubtedly some relation between the cost and the price.

Mr. NOTMAN. That is what we are going to try to explain.

Representative WILLIAMS. At least there should be, it seems to me.

Mr. NOTMAN. The three fabricated products upon which I have been able to secure prices, for which those products were sold, prior to the acquisition of any fabricating units by the copper producers, are copper wire, base size, copper sheets in base sizes, and so-called high brass sheets. High brass in the trade in general is an alloy composed of 66 percent copper and 34 percent zinc. I have used for my sources for prices on the products in the two periods which I have examined, the annual yearbooks published by the American Metal Market, under the title of Metal Statistics. The American Metal Market is a daily trade paper which has been publishing these year books for the last 32 years, and enjoys the confidence and respect of the metal trade and the mining profession for the accuracy of their compilations.

I don't know whether you want to introduce these yearbooks into the record.

The CHAIRMAN. I wouldn't think so, Mr. Notman. Suppose you state simply the conclusion which you are seeking to convey to the committee, and then it can be supported by any statistical exhibit that you desire.

Mr. NOTMAN. I have a summary here which shows the differentials between the average prices of electrolytic copper, f. o. b. refinery, and copper wire, copper sheet, and high brass sheet, for the periods 1909–12, inclusive, and 1933–38, inclusive.

The CHAIRMAN. Very well, what does it show?

Mr. NOTMAN. In the case of copper wire, that average differential was 1.38 cents per pound in the early period.

The VICE CHAIRMAN. Yes; but now what percentage of value was that differentiation?

Mr. NOTMAN. Well, the average price of electrolytic copper for that period was 13.75 cents per pound, and they sold their wire at an average price of 15.13 cents per pound. In the later period, '35 to '38, inclusive, that average differential was 3½ cents per pound.

Mr. SCOLL. So that the difference between the price of copper and the fabricated article has increased considerably, taking into account the fact that the copper producers have acquired the fabricators who have made the copper. Is that a correct summary?

Mr. NOTMAN. Yes; I think so.

Mr. SCOLL. That same thing would apply to other fabricated articles?

Mr. NOTMAN. Well, in the case of copper sheet, in the early period the differential was 4.73 cents, and in the later period, 7.85 cents.

Mr. SCOLL. And the early period was the period when the copper producers owned no subsidiaries, the later period is a period in which they did own subsidiaries?

Mr. NOTMAN. In the case of high brass sheet, we have rather an extraordinary condition.

The CHAIRMAN. Are you leading to the conclusion that the larger the organization of the industry became, the greater was the differential?

Mr. NOTMAN. Well, I wasn't drawing any conclusions, Senator. I was merely giving the facts to the committee.

The CHAIRMAN. And letting the committee draw the conclusions.

Mr. NOTMAN. Yes, sir.

Mr. SCOLL. Senator, may we introduce that table as an exhibit?

The CHAIRMAN. Certainly. It may be received.

(The table referred to was marked "Exhibit No. 2169" and is included in the appendix on p. 13545.)

The VICE CHAIRMAN. Do you have any information as to the relative income of these producers of copper between those two periods, with reference to which these figures are compiled?

Mr. NOTMAN. Well, I am not sure that I understand the question, Congressman.

The VICE CHAIRMAN. Here is a period in which there was this lower differential and then there came a period of much higher differential. In what way were those differences in differential reflected in net profit to the concerns?

Mr. NOTMAN. Of course in the first period they were not concerned with fabricating at all, so that their figures give you no measure of what the fabricating profits were in the early period. There were not in that business, but it does show that those who were in the fabricating business were able to recover their costs and presumably some profit with a margin less than half of what seems to be required now.

The VICE CHAIRMAN. May I ask this question in that connection, if the Chair will pardon me? Have you developed in your testimony, Mr. Scoll, or do you expect to, whether or not in their system of accounting these integrated companies now have a separate accounting for production and fabrication and marketing?

Mr. SCOLL. Congressman, we haven't gone into their accounts.

The VICE CHAIRMAN. What you are trying to do mostly now is to deal with cartels, I believe?

Mr. SCOLL. Yes.

The VICE CHAIRMAN. How does this testimony we are getting now bear on cartels?

Mr. SCOLL. It bears on the question of what the economic effects have been on the prices of the things that have been produced. The previous testimony went to show how the industry has grown and integrated and how it is coordinated, and Mr. Notman's testimony is going to show what effect those influences have had on prices and on employment.

The VICE CHAIRMAN. You are going to hook this up with some cartel connection between these?

Mr. SCOLL. Well, we have already discussed the organization—the so-called cartel organization—of the copper industry. Now we are discussing what the results have been of that organization. I have one final question for Mr. Notman, and that will conclude this copper testimony.

Representative WILLIAMS. One question in this connection I would like to ask: To what extent do these integrated companies carry on this fabricated business?

Mr. NOTMAN. My impression is that that is already in the testimony. My recollection is that they now own in excess of 70 percent of the fabricated capacity in the country.

Representative WILLIAMS. Oh, I had forgotten that that was in the testimony.

Mr. O'CONNELL. The witness, a few moments ago, was about to give us the figures as regards the differential in high brass, and I would like to have those. You said they are rather striking?

The CHAIRMAN. They will go in with the exhibit.

Mr. O'CONNELL. I would rather not wait until you read it. If you can give us those two figures, it will take just a moment.

The CHAIRMAN. All right.

Mr. NOTMAN. On high brass, we have a differential over the cost of electrolytic in the early period of 0.4 cent per pound. In the later period, it was 5.95 cents per pound.

Mr. O'CONNELL. And may I ask one more question? Have the characteristics of the commodities that you have been comparing undergone any substantial change in those two periods?

Mr. NOTMAN. So far as I know and have been able to check with the American Metal Market, they represent the same trade products.

Mr. PIKE. There is one thing on high brass, Mr. Notman, which I would like to ask. Do you happen to know the difference of the price of zinc for those two periods?

Mr. NOTMAN. In the early period, the average price for zinc was 6.95 cents, and in the later period, it was 5.46 cents.

Mr. PIKE. Not a great difference then?

Mr. NOTMAN. Actually nearly a cent and a half less.

The CHAIRMAN. Mr. Scoll?

Mr. SCOLL. Mr. Notman, you have heard the testimony of the representatives of the leading copper companies on the subject of cooperation and how that has brought about stabilization in the industry. Could you briefly summarize your view on that point with reference to what has happened in the business cycle and whether or not the cooperation has in effect brought stabilization?

Mr. NOTMAN. Well, I have an article here that I prepared for the American Yearbook, 1934 volume, and perhaps——

Mr. SCOLL (interposing). Read the last two paragraphs of that statement.

Mr. NOTMAN. Under the caption of "Fallacies in the name of conservation," it is suggested—

> that the socalled natural resources industries are in a different category from manufacturing and therefore should be regimented in some different and stricter

manner, because the ultimate exhaustion of these natural resources is inevitable, and posterity must be protected from this impending shortage through wasteful exploitation. After all, there is nothing wasteful about permitting the nation as a whole to secure its needs cheaply. Whatever merit there may be in the argument would seem to imply that with limited supplies within her borders, a nation should give every encouragement to the exploitation and exhaustion of foreign sources before consuming her own. This, of course, means the abolition of all tariffs on such materials.

Much stress is laid on petroleum as an example of wasteful production, but here we are dealing with a weakness in the basic law governing the exploitation of petroleum resources in the United States. The so-called law of capture requires the owners of properties adjoining producing wells to drill off some of the wells so that that portion of the oil pool underlying those properties may not be drained by the original drilling, leaving those properties with no production, to which they were entitled by ownership. Herein lies the chief difficulty of the petroleum industry. No such conditions exist with respect to copper or any other important mineral resource, but for reasons not hard to find, certain producers of the metals bespeak the government in the name of conservation to permit them to conspire against the public to fix prices and control production, to defeat the law of supply and demand; in other words, to set up monopolies. To fix and maintain prices, however, implies the existence of three conditions, as follows: Monopoly of supply, unavailability of satisfactory substitutes, and inelastic demand.

Throughout history, these conditions have never existed save momentarily with respect to any important commodity. The world has always and will always find ways to avoid undue exactions by those seeking to establish monopolies. Nothing short of arbitrary dictatorial powers could possibly support them. It would surely appear wise to design an economic program in harmony with economic law rather than in conflict therewith.

The probability of success for a machine designed in conflict with physical law can never be greater than zero, and similarly the probability of success for an economic program based on having more by making less can never be more than zero, whether tried by an individual, a corporation, an industry or a nation.

I would like to add, if I may, for a moment, Mr. Scoll, the description given to such artificial methods of control of production by Mr. J. R. Finlay, to whom I have referred already. In writing to me on that subject, he expressed himself this way:

I will take one more opportunity to reaffirm a lifelong conviction that production is already adequately controlled by the law of supply and demand. The laws of economics are fully as rigid as those of mechanics capable of inflicting penalties on those who ignore them far more severe than any committee could think up. A man who ignores the law of gravity breaks his neck. One who continues to produce something which the world does not want goes broke. It is true that astronomers by long years of observation and study finally determined the fact that the earth revolves around the sun in an elliptical orbit which phenomenon gives rise to many beneficial effects. They may well have determined at the same time that it would have done a better job had it revolved in a circular orbit. But so far as I am aware, I never heard of a committee getting together to try to bring that about.

Mr. Scoll. Thank you, Mr. Notman.

The Vice Chairman. Well, now, wait a minute. I think there is much in this fundamental principle. Now, do we understand from your observations based on what you have observed and what you have seen that these laws of economics to which you refer do not require an agency of government to make them effective, as applied to a community of human beings, on that basis?

Mr. Notman. No; my feeling, Congressman, is that no single group in any country——

The Vice Chairman (interposing). I understand but I am just asking you a question.

Mr. Notman. Can be trusted with the power to regulate themselves.

The Vice Chairman. That's right.

Mr. Notman. It requires somebody who has the interest of the public in general.

The Vice Chairman. Now, one of two questions, if I may. I understand from my colleagues that this is not in the record. Have you any notion as to the amount of capital required with reference to ordinary conditions, to equip a mining and refining plant sufficient to operate in the copper field?

Mr. Notman. Yes; I have such figures.

The Vice Chairman. Are they in the record at all?

Mr. Notman. They are given in this pamphlet.

The Vice Chairman. Is that to be in the record?

Mr. Scoll. We can put it in the record. May we insert the pamphlet in the record?

(The pamphlet referred to was marked "Exhibit No. 2169-A" and is included in the appendix on p. 13546.)

The Vice Chairman. Well, it has been suggested by the chairman that it would seem wise that those figures be incorporated, if you will be good enough to incorporate them.[1]

The Vice Chairman. Now, with regard to these integrated companies, has anything come to your observation to indicate that with regard to manufacture and sale of those commodities, in one or more of those steps, they may suffer a loss and make it up from profit in some other phase of their activities?

Mr. Notman. That undoubtedly happens in certain instances. I cannot cite the facts because most of those companies give consolidated income statements without any allocation of profits or cost to the particular steps.

The Vice Chairman. That information would probably be regarded as important, as a usable fact to some members of the committee, if it should be found that the producers of—shall I call it the raw material?—where they have practically no competition, would, where they compete with independent producers, reduce their cost to the point where it would tend to squeeze the independent producers out of the field of activity. I mean, it would be important one way or the other. To me, I think, it would be one of the most usable facts that could be drawn out.

Mr. Notman. It is possible that the independent fabricators who have no source of raw material of their own may be in an uncomfortable position in competing with the integrated companies in the fabricating end of the business.

The Vice Chairman. It would seem to me, just looking at the whole picture as an outsider, that if the persons who produce the raw material, if they be closely organized, they could make it tremendously difficult, it would seem to me, to an independent producer who has got to go to his competitors for his raw materials.

Mr. Notman. Yes; there are possibilities in both cases.

Mr. Pike. Your comparison as to differentials, though, suggested the opposite.

Mr. Notman. In case the independent fabricator had free access to copper supplies at all times.

The Vice Chairman. You mean copper supplies that are to be bought under competitive conditions?

[1] The figures appear in "Exhibit No. 2169-A," appendix, p. 13546, at p. 13552.

Mr. Notman. Yes.

The Vice Chairman. Does that condition obtain?

Mr. Notman. Well, I think in general it has obtained.

The Vice Chairman. Well, that would be important.

The Chairman. In other words, the integration of the industry has not operated to the disadvantage of the independent fabricator; is that the conclusion you want to leave with us?

Mr. Notman. No; I don't want to draw that conclusion, Senator, because I don't know what the facts are.

The Chairman. Well, then, of course, your testimony would not be of importance. May I ask this question: You have been sitting here during the preceding testimony, and you have heard the conclusions stated by representatives of the industry, that the associations which have been affected from time to time by way of the Copper Export Association, for example, Copper Exporters, Inc., the foreign cartel, and so forth, have been used primarily for the purpose of curtailing production merely to prevent the destructive decline of prices, and not for the purpose of exploiting the consumer. Have you heard that testimony?

Mr. Notman. Yes.

The Chairman. What is your conclusion with respect to that?

Mr. Notman. Well, my conclusion is that most of the undertakings—and there have been many of them throughout the history of the industry, prior to Copper Export Association, Copper Exporters, Inc.—all resulted in higher prices.

The Chairman. Well, now, were those relatively higher prices or were they high prices which resulted because the lower cost of production was not reflected in the final price to the consumer?

Mr. Notman. Strangely enough, they all of them coincided with a rising cyclical trend of business, and they all collapsed when the decline started.

The Vice Chairman. Self-preservation got into the situation?

The Chairman. Well, that doesn't quite answer my question, does it?

Mr. Notman. Well, you want me to express an opinion as to whether I think the objective was raising prices or preventing unduly low prices?

The Chairman. Well, let me put in this way, rather: Have these agreements resulted in actual increases of price or in an increased differential by reason of a reduction in the cost of production?

Mr. Notman. Well, what I have tried to indicate by this reference to fabricated product prices was that the reduction of cost in electrolytical copper, due to technological advances, had not been passed on to the consumer. I believe it was the testimony from previous witnesses that it had been——

The Chairman (interposing). Well, of course, the problem before the country in almost every great industry and in all business, is the effect upon public welfare of the highly complicated modern organization. Now, what I am interested in listening to is your opinion as to the effect in this particular industry of the complicated organization which is apparent in the copper industry.

Mr. Notman. I think, Senator, that it has been adverse not only to public interest but to their own interest.

The Chairman. And what remedy do you see for this condition?

Mr. NOTMAN. I am still a believer in the economics of Adam Smith, and if price is allowed to regulate supply and demand, it will do so. If rigidities are artifically imposed on free price, if rigidities are artificially imposed by labor by demands for continually higher wages, if rigidities are imposed by Government by increased taxes—those all tend to interfere with the price regulated.

The CHAIRMAN. Well, what specific would you suggest to the committee for avoiding these results?

Mr. NOTMAN. I would endeavor to develop such means as will continue to enforce competition.

The CHAIRMAN. What is your opinion with respect to the advisability of integration in the industry, that is to say, the acquisition of fabricating plants by producers? Should there be any separation of the two?

Mr. NOTMAN. Very definitely I am of the opinion that if I were a producer of electrolytic copper, and I may say for the committee's information that I am a representative of the industry as well as consulting engineer—I have been on the board of directors of the United Verde Mining Co. for a number of years back, and have been concerned with production. As a producer, I would not go into the fabricating business. As a fabricator, I would not go into producing end of the business.

The CHAIRMAN. And you say that would be your attitude now?

Mr. NOTMAN. Yes.

The CHAIRMAN. In present conditions?

Mr. NOTMAN. In present conditions.

The CHAIRMAN. Then that would imply that a producer who did not go into the fabricating business could, under present conditions, operate successfully?

Mr. NOTMAN. I know that he can.

The CHAIRMAN. And it would also imply that a fabricator who had no production source could also operate successfully?

Mr. NOTMAN. If he is protected against arbitrary price fixation.

The CHAIRMAN. Well, but is there such a thing as arbitrary price fixation?

Mr. NOTMAN. Well, there has been at times. I believe it is in the record—at least for one occasion.

The CHAIRMAN. Well, but you have just testified that, speaking for yourself, you would now recommend a production concern not to have a fabricating outlet?

Mr. NOTMAN. Yes, that is right.

The CHAIRMAN. Well, then, if that were your advice to a client who came to you seeking advice, it would necessarily be based upon the conclusion in your mind that under the present organization of the industry, such a producer could operate at a profit?

Mr. NOTMAN. Well, I am looking further ahead than that, Senator. I hope that I have a long view of the picture, and the ultimate good of the industry, I believe, depends on the maintenance of competition.

The CHAIRMAN. Well, would you say that there is or is not competition in the industry now?

Mr. NOTMAN. Not as much as there was.

The CHAIRMAN. And to what do you attribute that elimination of competition?

Mr. Notman. The concentration of ownership, both horizontally and vertically.

The Chairman. In other words, the integration of the companies and then their tendency to make national and international agreements or at least international agreements, as adverse to the present freedom of competition which you believe ought to be maintained?

Mr. Notman. In my judgment.

The Vice Chairman. If you had a client and you advised him not to go into the production of the raw material, your advice would be sounder perhaps if his competitor was not in the production of raw material? In other words, you would want your client not to have to compete with somebody who was producing the raw materials and also fabricating? Do you have that in your mind?

Mr. Notman. I have this in mind, sir, that if there is a free market for hedging operations, there is very little difficulty in the independent fabricators' protecting himself against fluctuation in the cost of his raw material. If no such market is available to him, he can get himself in very deep water.

The Vice Chairman. Now, do you think that answers my question? You answer my question by saying if there is a free market he can get along pretty well?

Mr. Notman. Yes.

The Vice Chairman. Now my question was this: Whether or not the position of the independent operator who doesn't produce the raw materials—who is a fabricator—would be better and safer if his competitor didn't have the advantage of producing the raw material also? That is a concrete proposition, but it gets right down to the heart of this inquiry, or part of it.

Mr. Notman. Well, taking the long view of it again, I think he would be.

The Vice Chairman. Well, shorten up your view a little bit in what you say.

Mr. Notman. Well, I think I wouldn't advise him to leave his own last.

The Vice Chairman. I understand that, but I am disposed to press this question so we can get it in the record—that is, if you feel at liberty to answer the question, and that is in the maintenance of this competition which you seem to feel is essential in the long run, and probably in the present run, too, is that opportunity for free competition as among fabricators disturbed by the fact or interfered with by the fact that maybe some of those fabricators also produce raw materials?

Mr. Notman. I think it is.

The Vice Chairman. Well, that is what we are trying to get at.

The Chairman. But that opinion is not so definite that it would prevent you from advising a producer at the present time to stay out of the fabricating business?

Mr. Notman. No; I certainly would advise him to that effect.

The Chairman. Well, then, consequently, doesn't it follow that in your opinion the integration of the industry is not disadvantageous to such producer? I am frank to say to you, Mr. Notman, you don't seem to give me a clear view of what your actual opinion is, whether or not the integration of the industry actually has impaired competition or whether it has not.

Mr. NOTMAN. I can answer that very definitely, that I feel it has.

The CHAIRMAN. Then it must be a disadvantage to the producer, that there is integration in the industry?

Mr. NOTMAN. I feel that way.

The VICE CHAIRMAN. Well, let's get that straightened out. You are sort of see-sawing that thing. If it is a disadvantage to an individual producer to be integrated, then how does that man have an advantage over the nonintegrated producer of the finished commodities?

Mr. NOTMAN. I don't think he has any——

The VICE CHAIRMAN (interposing). That is what I understood your statement to be.

Mr. NOTMAN. ——has any advantage when the independent fabricator has a free commodity market on which he can hedge his purchase of raw material. I happen to have, Congressman, some figures on the earnings of the American Brass Co. Unfortunately I haven't them with me, but prior to the acquisition of the American Brass Co. by the Anaconda Copper Co., the American Brass Co. made money every year, regardless of the fluctuations in the cost of their raw material—they made money whether copper was high or whether cooper was low, because they were in a position to hedge their raw-material purchases.

The VICE CHAIRMAN. I am being helped a good deal. I know about that hedging business myself. I already know about that, but now, if we could hold to this one thing that we are considering, and that is this, and I am not going to press the question further than this at this one time: Here is A. He is an integrated organization. B is producing the fabricated or finished commodities—producing the finished commodities. Now, is it your general notion that neither A nor B should be both in the production of raw materials and in the business of fabricating, as a matter of public policy?

Mr. NOTMAN. Right.

The VICE CHAIRMAN. That is right? But if A is the producer of the raw material, and the producer of the fabricated article, having his own source of raw material, is he or not at an advantage in his competition with B, for the opportunity to sell the commodities which people put in their houses in the way of plumbing?

Mr. NOTMAN. Well, my answer is just what it was before, that I would not go into both ends of the business.

The VICE CHAIRMAN. Well, we have heard that five or six times, but what I am trying to do is to get an answer to my question. If you want to answer it.

Mr. NOTMAN. Well, I would like to, but I don't understand the distinction between what you are asking and what I have replied.

The VICE CHAIRMAN., Well, I asked a pretty simple question, I think.

Mr. NOTMAN. Well, let's try again, Congressman.

The VICE CHAIRMAN. All right. A and B have commodities which they sell as plumbing that goes into a house. A is integrated and B is not integrated. A, therefore, has his own control of his raw material source. Those two people are competing for the opportunity to sell plumbing to go into a given house. Would A have any advantage over B in that competition by reason of the fact that A had an integrated organization?

The CHAIRMAN. And under present conditions.

The VICE CHAIRMAN. What I am talking about now.

Mr. NOTMAN. Under present conditions, I don't think he would have any advantage.

The VICE CHAIRMAN. Now what are those present conditions?

Mr. NOTMAN. Well, there is a free market at the present time.

The VICE CHAIRMAN. If he has any advantage it is a potential advantage. Well, now that is a clearcut answer and even I can understand it, and I am much obliged to you.

Representative WILLIAMS. Well, suppose his cost of production was considerably below the market price?

Mr. NOTMAN. Now, you are talking about the producer of electrolytic copper. We were talking about fabricators.

Representative WILLIAMS. Well, the man that I am talking about now is engaged in both of them—the man who is engaged in production and fabrication. Suppose his cost of production was below the free market price. Would not he have an advantage, then?

Mr. NOTMAN. Certainly.

Representative WILLIAMS. Well, he would have an advantage?

Mr. NOTMAN. The man who has the low cost always has the advantage.

Representative WILLIAMS. In other words, he would get his copper at the cost of production, while the independent fabricator would necessarily have to buy it at the market price?

Mr. NOTMAN. Well, if he can hedge again—all he is concerned with is getting his cost of his operation back, plus what he regards as a reasonable profit on it. Now, if he can hedge himself against any fluctuation in the cost of his raw material, he is not concerned with it.

The CHAIRMAN. Well, can a man or such an operator hedge under present conditions?

Mr. NOTMAN. Well, there again, Senator, I can't answer categorically because I don't feel that I know the facts. I know that prior to integration all of them did.

The CHAIRMAN. Well, you see, Mr. Notman, frankly speaking, the impression that you have given me is this: You state the premise, that competition is a desirable condition and ought to be maintained. Then say that the integration of the industry and these various agreements, international and otherwise, which we have been discussing are hostile to competition?

Mr. NOTMAN. Yes.

The CHAIRMAN. And then you say that under present conditions, in which all of these circumstances which you have described as hostile to competition do exist, there is nevertheless a free market, or otherwise competition exists?

Mr. NOTMAN. Well, as I understand it, there are no organizations in operation at the moment, Senator. That is what I was referring to.

The CHAIRMAN. Ah, I see. Well, now, when these organizations were in operation did we have free, open competition?

Mr. NOTMAN. I don't think we did.

The CHAIRMAN. So that you believe that the elimination of these organizations has tended to reestablish competition in this industry?

Mr. NOTMAN. I do.

The CHAIRMAN. And that we now have competition in the industry?

Mr. NOTMAN. Yes.

The CHAIRMAN. And that anything which would tend to revive those organizations would be adverse to public interest?

Mr. NOTMAN. Not only adverse to public interest but adverse to the interest of the companies themselves.

The CHAIRMAN. Why adverse to the interest of the companies themselves?

Mr. NOTMAN. Well, the automobile industry is probably—there probably is no industry where the competition is keener. Nevertheless, it is the most prosperous industry that we have. In my opinion, if the three large manufacturers of automobiles got together and allocated markets and divided up the business, we would be paying twice as much as we are for automobiles and they would be selling for three times what they are selling for, and there would be a smaller volume of employment in the industry.

The Vice CHAIRMAN. You think, then, that that old fellow who was sitting around a kerosene lamp or pine knot and reading or thinking a little bit and deciding that competition was the life of trade, wasn't as big a fool as most of us fellows who fly around in flying machines now think?

Mr. NOTMAN. I don't think he was any fool.

The CHAIRMAN. Are there any other questions to be addressed to Mr. Notman?

You have how many more witnesses, Mr. Scoll?

Mr. SCOLL. That is all I have on copper. I believe that Dr. Kreps has some more witnesses this afternoon.

The CHAIRMAN. We have two more witnesses on the cartel hearing, do we not?

Dr. KREPS. Three.

The CHAIRMAN. What opportunity will there be to finish with them this afternoon?

Dr. KREPS. I think we can finish only two this afternoon.

The CHAIRMAN. I see. Well, thank you very much, Mr. Notman.

Mr. SCOLL. Before we recess, may I offer the article from which Mr. Notman read for the file? May I have that article?

The CHAIRMAN. You want it for the file? It may be received and filed. It is not to be printed.

(The article referred to was marked "Exhibit No. 2169-B" and is on file with the committee.)

The CHAIRMAN. The committee will stand in recess until 2 o'clock.

(Whereupon at 12:30 p. m., a recess was taken until 2 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:15 p. m. on the expiration of the recess.

The CHAIRMAN. The committee will please come to order. Dr. Kreps, who is the first witness?

Dr. KREPS. I call Dr. Amos Taylor of the Department of Commerce.

The CHAIRMAN. Mr. Scoll is not here this afternoon?

Dr. KREPS. No.

The CHAIRMAN. I should have made acknowledgment this morning, then, of the splendid service which he has performed for the committee in the presentation of the copper industry. I think all the members of the committee felt that it was an excellent piece of work.

Dr. KREPS. I want to add to that my own personal gratitude to David Scoll and Samuel Moment for the able way in which they took charge of the copper portion of our cartel hearing.

The CHAIRMAN. Mr. Taylor, do you solemnly swear that the testimony you are about to give in this hearing shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. TAYLOR. I do.

The CHAIRMAN. You may be seated.

TESTIMONY OF DR. AMOS E. TAYLOR, CHIEF, AND DR. PAUL D. DICKENS, ECONOMIC ANALYST, FINANCE DIVISION, BUREAU OF FOREIGN AND DOMESTIC COMMERCE, WASHINGTON, D. C.

Dr. KREPS. Dr. Taylor, Mr. Chairman, is stricken with a cold and he would like to have his assistant also sworn in, who will be able to help him with the questioning.

The CHAIRMAN. Mr. Dickens, do you solemnly swear that any testimony you may give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Dr. DICKENS. I do.

Dr. KREPS. I probably should preface the examination of Dr. Taylor by saying that we are at this stage resuming our consideration of cartels in general. We began with a general introduction, and then in order that the committee might see exactly how cartels or cartel-like organizations or activities are carried on, an historical and detailed examination was given to an industry in which, in accordance with the weight of opinion on cartel literature here and abroad, many of the aspects of cooperation are best exhibited.

The purpose of Mr. Taylor's testimony is to indicate the extent to which a circumstance which Mr. Kelley referred to in his testimony is present in other industries in our economy. You will remember that Mr. Kelley stated that the originating factor in the formation of Copper Exporters Association was protection against the Metallgesellschaft, the buying cartel in Europe. Mr. Taylor is going to discuss the international impact of international industries in general, including cartelized industries, upon our industry.

For the convenience of the committee, a summary of his testimony has been prepared, but Mr. Taylor prefers to answer questions and state the points made in the summary in his own words. Dr. Taylor.

FOREIGN INVESTMENT AND CONTROL IN AMERICAN ENTERPRISES

Dr. TAYLOR. My statement relates primarily to the results of a special study which we have recently completed in the Finance Division of the Bureau of Foreign and Domestic Commerce relative to the foreign investors' interest in American enterprise, particularly insofar as that foreign interest represents control and majority ownership in such American enterprises.

We find that foreign companies or individuals resident in foreign countries own or control a total of 1,172 companies, and branches, in American enterprises.

The CHAIRMAN. Dr. Taylor, may I interrupt you to ask—my attention was diverted for a moment—whether you were requested to give

a brief summary of your service in the Government and your experience?

Dr. TAYLOR. I might say, Senator, that the nature of this study is very much like that of studies that we have been making on a continuous basis.

The CHAIRMAN. You didn't hear my question. Did you ask him?

Dr. KREPS. No; I did not.

The CHAIRMAN. Well, Dr. Taylor, what position do you hold in the Department?

Dr. TAYLOR. I am sorry. I am Chief of the Finance Division in the Bureau of Foreign and Domestic Commerce.

The CHAIRMAN. How long have you held that position?

Dr. TAYLOR. I have just recently been appointed as Chief; for 8 years I was Assistant Chief.

The CHAIRMAN. How long have you been in the Department of Commerce?

Dr. TAYLOR. I have been in the Department of Commerce since November 1930.

The CHAIRMAN. How did you enter the Department?

Dr. TAYLOR. I entered the Department through the regular Foreign Service examination, and was appointed to a position in Washington. The nature of my work happened to be such as to keep me there. I made no request at any particular time to enter the Foreign Service.

The CHAIRMAN. You entered by way of examination, civil-service examination?

Dr. TAYLOR. It was the regular Foreign Service examination. I am not quite sure exactly how that would be catalogued under the civil-service rules as of that time.

The CHAIRMAN. What was your previous training?

Dr. TAYLOR. For 10 years prior to my coming to Washington I was on the faculty of the Wharton School of the University of Pennsylvania.

The CHAIRMAN. Very well.

Dr. TAYLOR. The total amount of investment which foreign companies had at the end of 1937 in these 1,172 companies and branches was approximately $1,883,000,000. In this total the manufacturing group represents the largest single industrial type of enterprise.

The CHAIRMAN. What is the source of these figures?

Dr. TAYLOR. Our figures have been collected from various sources. Some of them are secured from reports of other Government departments. We are dependent to a very large degree for our information on special reports from the various corporations concerned, with which we have developed through the years of our work in the Finance Division a relationship whereunder every year certain statistics are submitted to us with the understanding that insofar as they relate to the individual companies they be held confidential. With that kind of cooperation we have been able to continue what we consider fairly complete studies of foreign investments of various kinds in the United States.

The CHAIRMAN. And we may regard these as substantially accurate figures?

Dr. TAYLOR. I would consider them substantially accurate, Senator.

The CHAIRMAN. The reason I asked that question is that sum which you give, namely, $1,882,603,000, seems to be considerably

smaller than the estimate which has currently been placed upon foreign investments of this character in the United States.

Dr. TAYLOR. Well, I think that there is a general tendency for the more popular estimates of foreign investments in the United States as well as American investments abroad to be reported higher than they really are. This, of course, represents only one type of foreign investment in the United States. The total foreign interest in this country at the present time is possibly close to $9,000,000,000, or between $8,000,000,000 and $9,000,000,000, but the remainder is represented by other types of investments, including approximately $3,000,000,000 in bank balances that are foreign owned.

The CHAIRMAN. What other types?

Dr. TAYLOR. Another very important category is one closely related to this group except it does not represent control, namely, the holding by foreigners of many small blocks of stocks of corporations such as those whose shares are listed on the New York and other stock exchanges. The total of that type of holding here is a very important item, running possibly between 2½ and 3 billion dollars.

The CHAIRMAN. Then this figure purports to deal solely with investments which constitute control of 1,172 companies?

Dr. TAYLOR. That is correct, Senator.

In this particular group, a total investment of $729,000,000 represents controlling investment in manufacturing industries as distinct from other types of business. This represents, therefore, about 40 percent of the total.

Dr. TAYLOR. Other important items or groups are, first, the banking, insurance, and other financial types, all in the aggregate representing an investment of $412,000,000. There are others that are relatively important, such as petroleum, transportation—which, incidentally, is represented primarily by the controlling interest in railroads in this country on the part of the two Canadian systems—and then various distributive enterprises have substantial investments here.

I have here a table which shows the total figure divided by industrial groups, the group extending far beyond the few that I just mentioned. I shall be glad to have this table prepared for inclusion in the record, if desirable.

Dr. KREPS. I suggest that this table be included in the record.

The CHAIRMAN. It may be received.

Dr. KREPS. And given exhibit No. 2170.

(The table referred to was marked "Exhibit No. 2170" and is included in the appendix on p. 13557.)

Dr. TAYLOR. Now, when we take this total investment and examine it by countries, that is on a geographical basis, we find that the United Kingdom share is the largest, representing a total investment of $833,000,000, or about 44 percent of the total. The Canadian share, although considerably smaller than that of the United Kingdom takes second place with a total investment of $463,000,000. The so-called direct investments of the Netherlands amount to $179,000,000 and are third in order of size by countries.

It might be interesting to note that taking all European countries together, the total amounts to $1,337,000,000. It might also be added that exclusive of Europe, Canada, and Japan, the so-called direct investments in the United States held by foreigners are relatively

small, although a large number of other countries are represented to some degree in these holdings.

In connection with the geographic distribution of these investments, we have two tables that have been prepared with a view to showing this distribution in some detail—one table Foreign Direct Investments in the United States, End of 1937, showing the amount that each country has in the United States, and the other one, called Foreign Direct Investments in the United States by Countries and Industries, showing the totals for the important countries broken down by types such as manufacturing, distribution, transportation, public utilities, petroleum, mining and finance.

Dr. KREPS. Would you like to submit these?

Dr. TAYLOR. I would like to submit these two tables for the record by way of amplifying my remarks before the committee.

The CHAIRMAN. The tables may be received.

Dr. KREPS. The exhibit marked 2171 reads, "Foreign Direct Investments in the United States in 1937," and exhibit marked 2172, "Foreign Direct Investments in the United States by Principal Countries and Industries."

(The tables referred to were marked "Exhibits Nos. 2171 and 2172" and are included in the appendix on pp. 13558 and 13559.)

Dr. TAYLOR. In order that we may examine these investments from the standpoint of the size of the companies concerned, we made a special examination of 651 industrial and commercial enterprises which are foreign-controlled, the total representing an investment of $1,347,000,000. In this group, 37 companies, that is, companies in this country, foreign-controlled, represent each an investment of more than $10,000,000. The total investments of these companies represent 64 percent of the total of the 651 relatively large companies examined.

An examination of the foreign holdings of the common stock of these companies as examined against the interest in the total assets of these companies shows that 81 percent of the common stock is entirely foreign owned, whereas only 63 percent of the total capitalization is foreign owned, simply indicating that in these companies controlled from abroad, the interest of the foreign owners ran more nearly to total ownership in the common stocks than in the case of the preferred shares and the bonds.

We find that the interest in American enterprises is fairly well scattered throughout the American economy. There are certain types of industries in which there is, of course, a higher degree of control than in others. When we examine the degree of control in particular types of industries by individual countries, we find slight differences. The British interest, for example, is centered to an important degree in the manufacturing field. The Canadian is scattered, except perhaps for one special situation, namely, that of the railroads running between the eastern part of Canada to certain parts of our eastern seaboard, and the other roads running out of central Canada into the Chicago area, roads that are controlled by the two Canadian systems. Apart from that, the Canadian interest is represented here more or less by a relatively large number of moderately sized companies.

Now, I haven't gone into any detail with regard to these, with more or less of the thought that there may be some questions on them.

The CHAIRMAN. I observe from examining this table No. 3, which you have presented, that with the exception of the United Kingdom, Canada represents by far the largest block of any foreign ownership in the United States.

Dr. TAYLOR. Yes; that is true. I should like to suggest, in connection with your questions that are based on these tables, if I may, I should like to have Dr. Dickens answer the questions since he directed the study and is much more familiar with the statistics.

The CHAIRMAN. Well, he may answer any question that he may desire to answer. To what extent do these figures represent merely ownership by individuals in a particular concern, and to what extent, if you know, do they present ownership by organizations in American corporations?

Dr. DICKENS. I don't have the exact figures on that, but I don't believe that more than, say, 10 percent of this investment would be represented by individual ownership; that the balance of 90 percent would be represented by organized or institutional ownership, such as a corporation.

The CHAIRMAN. Any other classification besides corporations, when you speak of institutional ownership?

Dr. DICKENS. No. That would be all a corporation, an insurance company—they are corporations.

Dr. KREPS. Are there any companies within foreign cartel organizations that have large investments in the United States?

Dr. DICKENS. I should say that there were very few companies within cartel organizations that have investments here, with the exception of a few of the relatively large ones.

Dr. KREPS. Do you know which? Could you give examples of some large enterprises that are subsidiaries of foreign units?

Dr. DICKENS. I should say that in the rayon industry, there undoubtedly is some cartel relationship. That would be the principal one. Possibly potash might come in that same category.

Dr. KREPS. Does the control of American enterprises by foreign corporations involve any considerable control of production in this country?

Dr. DICKENS. Generally, no. There are a few special cases, however, where a fairly large part of the production is in the hands of foreign-controlled companies.

Dr. KREPS. Due to patents or due to control by a special company set up over here?

Dr. DICKENS. In some cases, I think it might be due to patent control, at least at one time or other in the history of an industry. In other cases it is a matter of gradual development of firms conducting the same type of business that they had abroad.

Dr. KREPS. Now, as I understand it, there are a few cases where fairly large parts of the output in this country are produced by the United States subsidiary of a foreign enterprise, is that correct?

Dr. DICKENS. That is right.

Dr. KREPS. Could you give examples?

Dr. DICKENS. Well, I have mentioned the rayon industry. I think that would be true of the production of whisky in this country, the production of potash and borax, and true in a lesser degree of the production of dyestuffs. Most of the other—well, there might be some specialized patented products such as those, say, in

the medicinal field, that are largely controlled by foreign companies, but those would be specialized products. Taking the general field as a whole, the production probably does not run more than 1 to 5 percent of the total American production.

Dr. Kreps. You have been making some tabulations, have you, in various industries of the extent to which production in this country is controlled by foreign subsidiaries?

Dr. Dickens. We tried to measure at least all of the principal cases. It was not possible at all times to get production figures, but sometimes we could substitute sales or productive capacity. In the rayon industry, for example, we had productive capacity of the plants in the United States, which showed about 55 to 60 percent under foreign-controlled enterprises.

Dr. Kreps. How many such foreign-controlled enterprises in the rayon industry are there in the United States?

Dr. Dickens. There are five. In the whisky industry, I think the percentage of production was about 37 percent. On the other hand, probably 90 percent of the borax produced in this country is produced by foreign-controlled enterprises, and 75 percent of the potash is produced by such enterprises.

It should be noted here, however, that these companies are not wholly owned by foreign companies, but may have American interests associated with them, in some cases in form of fairly substantial holdings. Dyestuffs sales by foreign-controlled companies constitute 30 percent of the total sales of dyestuffs in this country.

The Chairman. Well, how many of all of these corporations thus controlled—1,172—are actually foreign corporations?

Dr. Dickens. They are all American corporations, that is, incorporated under American law, but the stock is held by foreign corporations.

The Chairman. Well, how many of them are corporations organized under American law, under American control?

Dr. Dickens. None of them.

The Chairman. They were all, when organized here, under foreign control?

Dr. Dickens. That is right.

The Chairman. What relation does this total investment mentioned by Dr. Taylor, namely, $1,882,603,000, bear to the total investment of this character in the United States?

Dr. Dickens. This is the total investment of this character. The total foreign investment in the United States, as Dr. Taylor said, was somewhere around $8,000,000,000

The Chairman. No, you misunderstood my question. What proportion of the total investment in the United States of this character, that is to say, in this sort of enterprise, is foreign-owned?

Dr. Dickens. That would involve, if I understand you correctly, a knowledge of the total investment in American corporations.

The Chairman. That is right.

Dr. Dickens. That figure I do not have. It would be a very small percentage, however, based on production figures. It would not run, on the whole, probably more than 5 or 6 percent.

The Chairman. Well, this is only a fraction of the total investment in the United States?

Dr. Dickens. A very small fraction, not more than 5 percent.

The CHAIRMAN. How significant, in other words, is this figure which Dr. Taylor has given us?

Dr. DICKENS. It is significant chiefly in showing the foreigner not to have any very substantial control of our American industry.

Mr. O'CONNELL. But they do have very substantial control over particular industries?

Dr. DICKENS. Over individual groups, individual commodities.

The CHAIRMAN. In the beginning of our industrial development, by far the greatest proportion of capital investment was foreign capital in the United States?

Dr. DICKENS. That is quite true.

The CHAIRMAN. So that this may represent the smallest percentage of foreign ownership in the history of the United States?

Dr. DICKENS. I don't doubt it at all. I would like to say, however, that in the early history of the United States, there was still considerable concentration of foreign capital in particular industries, say, in our railroad industries for example, and that certain other branches of the American industries were not greatly affected by foreign capital.

The CHAIRMAN. Well, there is much less foreign capital in our railroads today then there was 50 years ago.

Dr. DICKENS. Much less.

The CHAIRMAN. Proportionately. That is true, I suppose, of almost every other industry, is it not?

Dr. TAYLOR. Well, perhaps not in the same way that it applies to the railroad industry, but I certainly think it is safe to say that with the exception of these Canadian-owned subsidiaries here the foreign interest in American railroads is confined entirely to the ownership of small blocks of stocks in particular roads, but do not in any way represent control of the roads, and the same, I think, holds true by and large in other types of industry, although as has already been indicated, in such industries as rayon and perhaps a few others you do have some degree of concentrated foreign ownership.

The CHAIRMAN. By and large, it may be said very accurately that the American economy is now freer from foreign control and ownership than at any time in history.

Dr. TAYLOR. I think that is true, and of course we need to remember that since the World War the United States has gone through a period of its history in which it was really a lender rather than a borrower, and that is incidentally one of the reasons why during the period of the utilities development in the United States you did not have the foreign controlling interest coming in that you had coming in during the period of railroad building when we happened to be a debtor rather than a creditor. I think it is the changes of the last twenty years that have definitely moved us away from the foreign control.

The CHAIRMAN. In other words, we are moving in the direction of a much more independent economy so far as the world is concerned.

Dr. TAYLOR. I think that is correct.

The CHAIRMAN. And there is no reason to fear, then, that foreign controlled cartels are likely to dominate our economy.

Dr. TAYLOR. I think that is correct.

Mr. O'CONNELL. You are using the word "control" as not synonymous, I take it, with 51-percent ownership.

Dr. TAYLOR. I am not sure that we have for statistical purposes been able to adhere to a very strict definition of control. I think

perhaps it might be interesting in this connection if Mr. Dickens would briefly indicate how we have in practice determined when a company fell within the scope of our compilation.

Dr. DICKENS. In general, 51 percent might be taken as the rule, but in cases where we found that the foreign ownership was concentrated in large blocks and the American ownership was widely distributed, if that foreign ownership was as low sometimes as 30 percent, we would still put the company in the list of foreign control, provided the foreign ownership was concentrated in blocks large enough to indicate a very substantial voice in the management of the American company. Those cases are a relatively small part of the total figure mentioned in here in any case. Just how much constitutes control can't be a hard and fast rule.

Mr. O'CONNELL. I realize that is so as a matter of practice. I wanted to bring out, if I could, just what sort of measuring stick you did use.

Dr. DICKENS. The rule has been a flexible one.

The CHAIRMAN. If there are no other questions to be addressed to Dr. Taylor or Dr. Dickens, the witnesses may stand aside.

Representative WILLIAMS. I think it would be very helpful if we could have a little more elaboration on the question of these foreign investments outside of what is covered here. As I understood, you say that amounts to something like $8,000,000,000.

Dr. TAYLOR. It would amount close to that, I think. It depends of course somewhat on what methods are employed in determining the value of, let us say, these many small blocks of common shares held by foreigners. In this particular connection I don't believe that the statistics on foreign holdings here that do not represent foreign control would be entirely pertinent. We have made rather extensive studies covering the whole field of foreign investment interests in the United States. Without having any of the results before me, I would be somewhat hesitant to elaborate at any length upon them. I can say this by way of throwing the approximate figures into relief, that as I indicated a little while ago in response to Senator O'Mahoney's question, of these total foreign holdings here of about nine billion, at least three billion is represented by deposits mostly of foreign banks with American banks.

Those represent, no doubt, in substantial part, although not entirely so, the flight of foreign capital to the United States in recent years that has come here for safety. The accumulation of foreign-owned stocks in American corporations in small blocks purely for investment purposes is one that dates back many years. During the World War a substantial amount of the foreign holdings had been liquidated. Possibly two billion, if I may guess at a figure—perhaps Mr. Dickens can correct me—was left here and then was gradually built upon, particularly in the last 7 or 8 years, when due to uncertainties abroad capital moved out of investment in foreign countries and moved to the United States, especially in 1935 and 1936, presumably to take advantage of what was then a definite upward movement in business in this country. In addition to that there is a foreign ownership of American bonds which possibly runs $700,000,000—I am merely giving my best guesses at the moment—and there are holdings of preferred shares which would run perhaps another three, four, perhaps five hundred million dollars, and then miscellaneous investments, that is mis-

cellaneous in the sense that we are unable to catalog them very satisfactorily, not the least important item of which is represented at least for our purpose by holdings in trust funds where the beneficiaries live abroad. That item alone might conceivably run to $450,000,000 or $500,000,000. Our estimate as of the end of 1938, which we have published in an official report, shows these figures as follows. I find that a few of them are slightly less than those I gave you a moment ago, partly because of changes that took place during the year.

The direct investments here are shown at the end of 1938 as $1,685,000,000. The common stocks on a market value basis, that is those that do not represent control but are simply held in small amounts by foreigners——

Representative WILLIAMS (interposing). Just a moment. In order that I may understand you, what do you mean by direct investments?

Dr. TAYLOR. That is these controlling investments. We make the distinction between these and common stocks owned in small blocks. A British investor might conceivably own 50 shares of General Motors and another foreign investor another block of a given stock; all those in the aggregate, not representing control in any industry here, total on a market value basis at the end of 1938 about $2,250,000,000. The preferred stocks on a par value basis I find here are somewhat less than the figure I suggested. I think I suggested four or five hundred million. As a matter of fact, that was fairly close as a range estimate. It is $425,000,000. The bonds we showed on a par value basis at the end of 1938 at $580,000,000, and then miscellaneous investments, including these trust funds I referred to a moment ago were shown at $750,000,000. That total is $5,690,000,000. If you add to that these foreign owned bank balances and the small amount of brokerage balances, you have a figure that runs, as I said a little while ago, close to $9,000,000,000.

That is the composition of the total. Now our testimony before the committee is centered on that first group, the so-called direct investments representing foreign control in American companies.

Mr. O'CONNELL. What about gold? Is there gold in substantial quantity held here for the account of foreign governments?

Dr. TAYLOR. Well, the actual amount held is a public figure. We reported it recently in a release on gold exports and imports. I don't recall the exact figure. I think at the end of 1939 the amount of gold held here under earmark for foreign account was just slightly less than one billion. It was fairly close to $1,000,000,000.

The CHAIRMAN. Any other questions? If not, we are very much indebted to you, Dr. Taylor, and Dr. Dickens. Will you call the next witness, please?

Dr. KREPS. Dr. Clair Wilcox.

The CHAIRMAN. Dr. Wilcox, do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Dr. WILCOX. I do.

TESTIMONY OF DR. CLAIR WILCOX, SWARTHMORE COLLEGE, SWARTHMORE, PA.

Dr. KREPS. Dr. Wilcox, for the purpose of the record, will you state your full name, please, and address?

Dr. WILCOX. Clair Wilcox, Swarthmore, Pa.

Dr. KREPS. How long have you been at Swarthmore?

Dr. WILCOX. I have been professor of economics at Swarthmore College since 1927.

Dr. KREPS. I believe you have held positions in various governmental bodies? It seems to me I remember that you had a position with the Wickersham Commission; is that correct?

Dr. WILCOX. I was director of research for the National Commission on Law Observance and Enforcement; I served with the N. R. A. as a special advisor to the Consumers Advisory Board; as a member of the General Code Authority; as a member of the Advisory Council; and after the Schechter decision as Director of the Code Research Studies in the Division of Review. I served with the Social Security Board in 1936 as a consulting economist.

Dr. KREPS. You have heard the testimony on cartels. What do you understand by cartel-like arrangements?

Dr. WILCOX. Well, I should follow the—in a broad sense—definition that was introduced earlier in the hearings in the League of Nations committee report. Cartels are defined as associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale. Dr. von Beckerath, who was quoted in the earlier hearings, defines a cartel as a voluntary agreement of capitalistic enterprises of the same branch for a regulation of the sales market, with the view to improving the profitableness of its members.

Dr. KREPS. Now we have just had testimony indicating that the existence of cartels in this country can be but little stimulated by involvement, direct or indirect, in foreign cartel organizations. Have there been purely domestic cartel-like developments in the United States?

Dr. WILCOX. In the United States we have not called these arrangements cartels, but there have been and are in this country arrangements that are cartel-like in nature, and to which the word cartel might well be applied.

Dr. KREPS. How far back do they go?

Dr. WILCOX. Well in the nineteenth century there were a number of pooling arrangements, formal agreements fixing uniform prices, limiting output, and sharing markets by allocating sales quotas or assigning separate territories to the participants, enforced with provisions penalizing violations, or provisions for the sharing of profits. These were used in the sale of coal, cordage, cotton thread and yarn, glass bottles, gunpowder, iron and steel, meat, nails, naval stores, petroleum products, salt, sugar, tobacco, whisky, and other goods. In general the so-called pool was abandoned after the decision of the Supreme court in the *Addystone Pipe case* in 1899.

Dr. KREPS. Was there a survival of such cartel-like arrangements after this Supreme Court case?

TRADE ASSOCIATIONS AS CARTELS

Dr. WILCOX. The most significant development in the twentieth century in this connection appears to be the growth of the trade association. There are in the United States now some 2,000 national trade associations, or were at the end of 1938.

Trade associations are associations of sellers of the same product for common action. They may be incorporated or unincorporated.

They do not themselves produce or sell goods or make profits. They exist to serve their members. Members are free to enter or leave the association. They are administered by governing boards elected by their members, the detailed administration being in the hands of a paid secretary and staff. They are financed by dues paid in proportion to output, sales, capital, pay roll, or some such standard. The association cannot compel the collection of dues. The membership and contribution are voluntary. The strength of trade associations in various industries will depend upon the character of the industry, the number of firms in the industry, their relative size and whether one or a few of them are dominant.

Trade associations developed in the United States during the latter part of the nineteenth century. At that time they were either purely social arrangements or clandestine agreements. Their growth was greatly stimulated after 1912 by the enunciation of the rule of reason in the *Standard Oil case*, and by the publication of a book called The New Competition, by A. J. Eddy, proposing the development of a price reporting plan. They have had their greatest growth during the period of the first World War and during the life of the N. R. A.

The cooperative activities carried on by trade associations have included such things as simplification and standardization, cooperative industrial research, the interchange of patent rights, joint advertising, joint purchasing, mutual insurance, traffic information, credit and collection activities, joint representation before Government legislative or administrative bodies, common labor relations activities, commercial arbitration, and so on. This activity in general does not threaten independence of action of the individual members of the industry as to policy with reference to production or price.

It was said, however, in 1776 by Adam Smith that—

> people of the same trade seldom meet together even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.

That is from The Wealth of Nations.

Arthur Burns in his book on the Decline of Competition says that the collection and dissemination of information likely to affect the production and price policy of members have been the core of trade association activities. The most important types of activities are the cost-accounting activities, the statistical activities and the open-price reporting activities.

Trade associations have characteristically provided for the standardization of forms for the calculation of costs. According to Professor Burns the establishment of uniform systems is expected to eliminate price-cutting arising out of the ignorance of sellers. More generally cost accounts are a means of suggesting a minimum price, it being assumed that prices should never fall below costs of production.

Dr. Kreps. Are you suggesting that some of these activities may result in the equivalent of what we would call a price cartel?

Dr. Wilcox. That is the suggestion that I should like to develop. Trade associations go on to standardization of methods of calculating costs, establishing the prices at which raw materials are to be included, or the treatment of overhead. The next step is the standardization of the amount of profit included in costs. As Burns says, the resulting figure then becomes a desired selling price. They may go on from

there to the publication of an average cost for the whole industry. According to Burns the average cost has served as a cost which should be adopted by members in place of their own separate calculations, and is used as the basis of calculating a selling price by the addition of the desired rate of profit.

This leads to the inclusion of a profit element in average costs. Burns says:

> There still remains a possibility of differences in selling price, owing to differences in the amount of profit added to cost, and some associations have taken the final step and included an allowance for profit in the so-called average costs. Average costs then become merely a suggested selling price, uniform for all and provide a means by which to define and detect price-cutting and a stimulus to attempts to eliminate it.

There may finally be pressure on individual sellers to force them to adhere to the recommended common cost figures, either by recommendations in trade-association publications, by resolutions passed at trade-association meetings, or by persuasion applied by trade-association officials.

The statistical activities involve publishing statistics of the volume of production which may show output as a ratio of capacity and compare it with a normal ratio, or may compare output with orders or shipments, or may compare output with that in a normal period in the past. The consequent ordering of production amounts, according to Burns, to adapting production to demand and avoiding the accumulation of unsold stocks. It is implied that when demand declines there is only one proper response, viz., an equal reduction of output. Associations may go on to compare changes in the volume of one member's output with changes in the volume of another, and quoting Burns again:

> These calculations are aimed at deterring the firm whose sales have been falling from attempting to increase its sales by increased sales efforts or price-cutting at a time when the sales of all firms are falling. Such an interpretation of the statistics must tend to fix the distribution of business between firms. Insofar as price-cutting is deterred when business falls off there is also a tendency to maintain unchanged prices.

Sometimes statistics of inventories are published. Burns says these statistics are likely to be used as a guide to production policy, production being diminished when stocks are accumulating and increased when stocks are falling. The existing price of the product tends to be maintained and production adjusted to changes in demand at the unchanging price. Statistics of unfilled orders may be published.

The response to a decline in the total of unfilled orders may be a reduction of output for the purpose of maintaining prices. Statistics of productive capacity may be published and the presence of a large quantity of unused capacity may deter existing firms from expanding their equipment and new enterprises from entering the field, even though it might be possible to put the equipment to work at a lower price.

The third major type of activity of the associations is the open price reporting activities. It is argued that open price reporting may operate to increase competition in a trade and indeed it may, under certain circumstances: If information is made available to buyers so that one buyer discovers that two sellers are selling at different prices and he can hunt up the seller who is selling at the lower price. If pressure cannot be put on a firm reporting a low price in order to

get the firm to raise its price, because firms are not identified or the reporting agency is a confidential agency, impartial as among sellers, or where there are many sellers in the industry and no one dominates the industry, and finally if sellers report prices for a past period and not for the future and are free to change them when they wish.

Under these circumstances I say it is possible that open price reporting may operate to increase competition in a trade. On the other hand, it may operate under other circumstances——

The VICE CHAIRMAN (interposing). I didn't catch that last. Open price what?

Dr. WILCOX. An open price reporting system may operate to make a trade more competitive.

The VICE CHAIRMAN. You mean if each seller reports his price, or if some agency reports the average price, or the prices in detail?

Dr. WILCOX. Each seller reports his prices to the agency; the agency reports the prices offered by sellers without identifying the sellers, reports the range of prices offered by all sellers.

The VICE CHAIRMAN. That may result in what?

Dr. WILCOX. That may result in a more competitive situation in the industry than would exist in the absence of such a price reporting system—if that information were not otherwise available.

The VICE CHAIRMAN. You mean if a person found that a given article was selling from a dollar and a half to two and a half, that it might stimulate business?

Dr. WILCOX. He might hunt for the man who was selling it at a dollar and a half, and if other people who were selling at more than a dollar and a half discover that they were not getting the business, they might lower their prices in order to get the business.

The VICE CHAIRMAN. Why does that obtain in practice? Where is that stimulus ever to be observed?

Mr. HENDERSON. Isn't the stock market about the best example of it? That is where a number of bids are posted and there is a constant changing of the bid to make a price. Isn't that the best example of a real market where prices that sellers will take are posted?

Dr. WILCOX. Or where bids for commodities are posted.

The VICE CHAIRMAN. You think that is an illustration of what you are talking about, a fellow goes in and bids on a fluctuating or active market and he buys at a lower price and he thinks he can sell the stuff again?

Dr. WILCOX. The man will buy in th stock market at the lowest price at which anybody will sell.

The VICE CHAIRMAN. That is a thing you wouldn't have to support by argument, isn't it?

Dr. WILCOX. And that is what he will do under an open price reporting system, also.

The CHAIRMAN. We are discussing trade associations.

The VICE CHAIRMAN. Anybody does that; nothing you have discovered is remarkable about that, is there? People usually buy where they can get it the cheapest?

Dr. WILCOX. That is right.

The CHAIRMAN. The witness isn't really discussing that; he is discussing the operations of trade associations, as I understand it.

Dr. WILCOX. Yes, sir.

The CHAIRMAN. And one of the manifestations or activities carried on by trade associations is this open price reporting?

Dr. WILCOX. Yes, sir.

The CHAIRMAN. Now can you give us an illustration of that and how it operates to stimulate competition?

Dr. WILCOX. What I was saying was that it is argued that it might operate to stimulate competition under certain circumstances.

The CHAIRMAN. Then do you say, pardon me Congressman, that it does so react, in your opinion, from your studies?

Dr. WILCOX. It might conceivably. I should be at a loss to give you specific illustrations of open price reporting systems that have in fact done so.

The VICE CHAIRMAN. Let me ask you this question. In practice, do people belong to and sustain trade organizations which publish prices cheaper than they are able to meet, speaking generally, lower than they are able to meet?

Dr. WILCOX. Well, I suppose if the prices in an industry are lower than a firm is able to meet, it has to drop out of business, and thereupon it does not sustain the trade association.

The VICE CHAIRMAN. What I am trying to get at is the practice, do these trade associations by reason of the prices which they publish tend to stimulate competition?

Dr. WILCOX. As a generalization I should say no.

Mr. HENDERSON. I think, in looking ahead at your outline, when we get into the other provisions that are introduced in the open price associations it will be evident that the trade associations' main interest in open price is not competition.

Representative WILLIAMS. Let me see that I understand. I understood you to start out with the premise that the argument is made that open price reporting stimulates competition, and you propose to show that perhaps that wasn't the situation?

Dr. WILCOX. That is right.

Representative WILLIAMS. That is what I thought you started into show.

The VICE CHAIRMAN. I was just asking about this.

Dr. WILCOX. Under other circumstances the operation of an open price reporting system may tend to reduce competition in an industry. This would be the case where the information was available only to sellers and not to buyers, where the firm reporting the low price was identified in the reports by name or by symbol, or revealed to competitors in the field by the reporting agency, so that it might thereupon be possible for one seller to exert pressure on another to raise his price, or where the price reporting was combined with an average cost guide to price policy and the trade association officials should apply pressure to prevent the filing of prices below the price that covered the standard cost formula.

The VICE CHAIRMAN. How often do you find that these trade associations bring pressure on somebody to lower their prices?

Dr. WILCOX. I doubt if in a majority of cases they do bring pressure on people to lower their prices.

The VICE CHAIRMAN. Would you say almost a majority that they do?

Dr. WILCOX. I am not sure that I understand your question.

The VICE CHAIRMAN. You say you doubt that in a majority. You see that could be 45 percent, I believe, even more, maybe 49 percent. You think probably that approximates the percentage of cases in which they bring pressure to bear on their members to lower their prices?

Dr. WILCOX. I should say if pressure is applied it is more likely to be in the other direction.

Mr. HENDERSON. Let me ask a question. Now, there is a standard volume, as you know, on open price associations, and then there is Burns' book on the decline of competition; and then there was the N. R. A. experience. I think you are familiar with all of them. Is there a single case recorded in any of the literature on open price trade associations where the pressure was brought to reduce prices?

Dr. WILCOX. Not to my knowledge.

Mr. HENDERSON. Not to mine, either.

The VICE CHAIRMAN. Then the chances are probably it wouldn't even be 49 percent?

Dr. WILCOX. I think that is a safe statement. Or finally, if sellers are bound to adhere to the prices which they report until they file a new price, again the effect of the system would be toward lessening, rather than increasing competition. There is nothing in the set-up that gives any assurance that statistical reports on costs, production, inventories, orders, capacity, or prices will not be manipulated in order to raise or maintain prices.

These associations engage also in standardization of terms of sale. This operates to prevent indirect reductions in price. This involves common terms of credit, common cash discounts, common customer classifications, common trade discounts, common quantity discounts, common policy on trade-in values and refunds, the discouragement of long-term contracts, allowances, guaranties and so forth.

Burns' conclusion on trade association activities is this:

> The outstanding characteristic of trade association policies has been their attempt to restrict price cutting. Prices tend to be maintained upon a level that will keep even the highest cost firms in existence and give to others abnormally high returns. This policy tends to retard adjustments of the allocation of investment. Furthermore, the pressure existing under competition to raise the efficiency of all firms to the level attained by the most efficient is eliminated. The transmission of the benefits of reductions in costs to purchasers is retarded.

The trade association, he says, is—

> aimed in general at securing profits for all their members by maintaining prices and restricting output rather than by pressure to reduce the number of firms or increase the internal efficiency of producers.

A line has been drawn by the courts between legal and illegal activities of trade associations in the *Maple Flooring case* and the *Cement Manufacturers Protective Association case*, and more recently in the *Sugar Institute case.* Roughly, the courts have maintained that price reporting activities are legal if they are confined to past transactions, if the sellers are not identified, if the sellers are not compelled to adhere to the prices that they file, and if no agreement or understanding as to future price or production policy obtains.

It seems, however, to be a difficult matter to draw a clear line between cooperative activities enabling members of an industry better to adjust themselves to changing economic conditions and better to serve the public while preserving their essential independence on the

one hand, and concentration in the hands of a trade association or its leaders of power to control the production or price policies of all of the members of an industry.

To what extent are American trade associations functioning as effective cartels? I don't know that anybody can answer that question. There are 2,000 national trade association offices in the United States. In each of them a paid secretary with a paid staff is working, I suppose 5½ days a week, 52 weeks a year, to promote those activities which the trade conceives to be in its common interest. There are occasional Trade Commission investigations and sporadic antitrust prosecutions, but these probably can no more than scratch the surface of the situation. It would seem to me that the only way to obtain complete assurance that the merriment, diversion, and conversation of which Adam Smith speaks do not lead to the conspiracies or contrivances to raise prices, which he fears, would be to place an agent of the Federal Government in every trade association office to read all correspondence, memoranda and reports, attend all meetings, listen to all conversations, and participate in all the merriment and diversion, and issue periodic reports thereon to the Trade Commission or the Department of Justice or to some other agency of the Government.

The VICE CHAIRMAN. Do you say that would be the remedy?

Dr. WILCOX. I am not proposing that——

The VICE CHAIRMAN. (interposing) I didn't get your language exactly. I thought you said the only way to avoid this thing complained about is to do this thing.

Dr. WILCOX. I said the only way to find out whether in fact the activities are of the one character or the other would be some such device as this.

The VICE CHAIRMAN. Who would watch him?

Dr. WILCOX. I assume that it would be necessary also to have inspectors to inspect the inspectors.

I should like to have presented now a list of industries involved in cases brought before the Federal Trade Commission or before the courts, or both, during the last 10 years, in which members of an industry have employed a common agency, usually a trade association, to deprive individual sellers of their freedom to determine their own output or the prices at which they might sell, or to exclude other sellers from the industry.

Dr. KREPS. Would you like to submit this list as an exhibit, Dr. Wilcox?

Dr. WILCOX. Yes.

Dr. KREPS. This list of industries involved in cases brought before the Federal Trade Commission and/or the courts over the last 10 years in which the members of an industry employed a trade association or other common agency to deprive individual sellers of their freedom to determine their own output and/or the prices at which they may sell, or to exclude other sellers from the trade, is submitted.

The CHAIRMAN. The exhibit may be received.

(The list referred to was marked "Exhibit No. 2173" and is included in the appendix on p. 13560.)

Dr. WILCOX. The references in the exhibit where the material has previously been introduced into the hearings are to part 5-A of the hearings before this committee; the pages are indicated.

In the case of the antitrust cases, the references are to cases as numbered by the Department of Justice in the publication called The Federal Antitrust Laws.

The Chairman. Do you know how many of these cases listed in the exhibit which has just been offered were initiated by those who were engaged in the industry rather than by some agency of Government?

Dr. Wilcox. I can't answer that. I don't know.

In the case of the Trade Commission cases that have not been introduced into evidence before this committee, the docket number is given. It is indicated in connection with certain cases that they are still open, namely, there is a complaint before the Commission or an indictment has been returned by a grand jury. It will be noted that these arrangements have obtained in some 65 industries, including asphalt shingle and roofing, automobile parts and accessories jobbers, building materials suppliers, blue print paper, bolts, nuts and rivets, brushes, butter tubs, buttons and buckles, candy distributors, card clothing, cast iron soil pipe, chalk and wax crayons, water colors, and so forth, cellulose sheeting, cement, cleaners and dyers, compressed air machinery and pneumatic tools, corn products, corn cribs and silos, corrugated and solid fiber-board shipping containers, cotton yarns, dresses, electrical contractors, electrical equipment distributors, fire hose, fireworks, fish wholesalers, furniture retailers, furs, glass distributors, glazing contractors, golf balls, grocery wholesalers, hot air furnaces, industrial rivets, Kraft paper, ladies' imitation-leather handbags, laundries, linen coats, towels and aprons, lumber, machine tools, metal windows, millinery, Norwegian sardines, oil, paper, pulp and wooden dishes, photo-engraving, poultry, power cable and wire, produce distributors, retail credit reporting service, rubber heel distributors, rice, sand and gravel contractors, sea food, sheet metal contractors, sponges, sugar, surgical instruments and supplies, textile refinishing, tile contractors, trucking, uniform caps, water gate valves, hydrants and fittings, wooden containers, woolen goods and zinc and copper plates—from A to Z, omitting only a few letters of the alphabet.

The Chairman. How was this list prepared?

Dr. Wilcox. I prepared the list from cases before the courts or the Trade Commission.

The Chairman. Is it an exhaustive list?

Dr. Wilcox. It was every case that I could get. There are some cases before the Federal Trade Commission, I believe, that they have not yet published, so the list is not entirely complete.

The Chairman. Well, so far as the published records of the Federal Trade Commission are concerned, this represents every case that you could find?

Dr. Wilcox. That is right.

The Chairman. In the records covering these particular types of activity.

Dr. Wilcox. During the 10-year period.

The Chairman. And how did you conduct your search with respect to court cases?

Dr. Wilcox. I approached it through the cases as recorded by the Department of Justice in its list of numbered cases, relative to the Federal antitrust laws.

The CHAIRMAN. So that so far as your own diligence and accuracy could make it, this is an exhaustive list of published cases?

Dr. WILCOX. Covering that period.

The CHAIRMAN. That's right.

Mr. PIKE. May I ask, if these fellows all turned out to be guilty?

Dr. WILCOX. Where there was an acquittal or where the Federal Trade Commission dismissed a complaint, I did not include the case.

Mr. PIKE. In other words, these were presumably proven?

Dr. WILCOX. Except where indicated that it is an indictment or a complaint and the case is still open.

Mr. HENDERSON. Well, Dr. Wilcox, the question just put had to do with whether or not there was a legal violation. Would it not be possible that in a case where no conviction or no declaration of guilt was obtained, the economist would see many interferences with competition in the admitted practices that came forth in the case?

Dr. WILCOX. Yes.

Mr. HENDERSON. In other words, if you are looking at the restraints on competition, the economist is likely to see a much broader range than those with which the law has caught up?

Dr. WILCOX. I would agree to that.

I should like to pass on to a brief mention of the codes, so-called codes of fair competition.

The CHAIRMAN. Well, the Chair feels that one comment should be made here. Under the heading of "Candy distributors," I notice you have reference under subletter "d" to the Wyoming Valley Jobbers' Association. The Chair wants it to be understood that Wyoming Valley is in the State of Pennsylvania, and not in the State of Wyoming. (Laughter.)

Dr. WILCOX. I thought when I saw the smile on the chairman's face that he was going to call attention to the Institute of Tubular Split and Outside Pronged Rivet Manufacturers.

COMPULSORY CARTELIZATION UNDER THE N. R. A.

Dr. WILCOX. Trade associations played an important part in the initiation and administration of codes under the N. R. A. In general, they took the initiative in drafting and presenting the codes. This caused in many cases a consolidation of existing trade associations. It called moribund associations into life and created new associations, and these associations dominated the administration of most codes.

In some codes, the trade association itself was the code authority. In others, the trade association selected the code authority. In others, it selected the majority of the code authority. In general, or in a majority of cases, trade association and code authority officers and executives were the same.

Mr. HENDERSON. Dr. Wilcox, you have some familiarity with the submission of codes and code provisions. I know that over a period of years it seems to be increasingly the superstition that a group of wild-haired youngsters representing the Government in N. R. A. created most of the code provisions. Isn't it a fact that the code provisions were actually submitted by the industries themselves through their trade associations?

Dr. WILCOX. The origin of many of the code provisions can be clearly traced in the published codes of ethics of the trade associations.

in the trade practice submittals before the Federal Trade Commission, and in the earlier practices of the associations themselves. These things were not all invented overnight in 1933.

There was published by the Department of Commerce, Bureau of Foreign and Domestic Commerce, Market Research Series No. 4, a document called Code Sponsoring Trade Associations. An examination of this document indicates that in about 600 out of 850 codes, the secretary of the code authority and the chief executive of the trade association had the same name and did business at the same address.

The N. R. A. in some cases strengthened the trade associations by forcing members to contribute to their support. In the garment industries, there was the requirement that labels be purchased and sewn in garments sold by establishments operating under the codes. The cotton garment code authority sold labels at a profit to itself and used the income to administer the code. The code authority hired the trade association to manage the code. The code authority and the trade association were run by the same officials in the same office. It was impossible to determine which was code authority work and which was trade association work.

In effect, then, the label provision in this case gave the trade association the taxing power to maintain its activities. That, in general, was not true in N. R. A. codes.

All 750, or depending on how you count them, 850 codes, made some provision regulating terms of sale. The N. R. A. division of review has published a document called "Summary of Analyses of Certain Trade Practice Provisions in N. R. A. Codes," which devotes 46 pages, typed single space, to listing 21 major types of provisions designed to restrict the granting of indirect concessions to influence a sale, or to preserve or modify channels of distribution.

Five hundred and sixty of the first 677 codes had some provision governing the prices that might be charged by members of an industry. Four hundred and three of them forbade firms to sell below cost; 352 of these forbade a seller to sell below his own cost; and 51 forbade a seller to sell below some average cost for the industry. But 361 codes provided for the establishment of a standard cost system. Only 39 of these systems were approved by the N. R. A. This gave the code authority——

Mr. HENDERSON (interposing). A little information as to why they weren't approved might be offered, because I was the approving officer, at the end of 1935, I think it was.

The CHAIRMAN. Well, why weren't they approved, if that is the proper question, Mr. Commissioner?

Mr. HENDERSON. That is a good question, Mr. Chairman. I thought that they were not drawn for the encouragement of greater production. There was some language in the act creating the N. R. A. which indicated it was to be a recovery administration, and I did not think that we could get recovery by restriction of production. I had some other technical accounting reasons but in the main, most of the accounting systems presented by trade associations to implement the no-selling-below-cost provisions of the codes were price-lifting devices. They had in mind making it mandatory that every member of the industry use a fixed set of costs as the basis for his

prices. The kind of examination we gave them plainly indicated that they could not be passed by the N. R. A. A few were actually written into the code, within the first 10 codes. There was one written right into the code and there wasn't much to be done about that.

Dr. WILCOX. If I may do so, I should like to quote a few cases of cost accounting provisions in the codes. The crushed stone, sand, gravel, and slag code defined prime plant cost and required that no producer sell below prime plant cost plus 10 percent. The waterproofing, damp-proofing, and so forth, code forbade sale below allowable cost, which was defined as the cost of materials, containers, and processing, plus a reasonable percentage of these three to be determined by the code authority. The structural clay products industry code forbade sale below allowable cost, which was defined as individual indirect factory cost of such member plus the weighted average indirect allowable cost as determined by the code authority. This cost was stated in dollars and was uniform for the industry.

The paint, varnish, and lacquer code said:

> The Paint Industry Recovery Board shall classify the products of the industry and establish and furnish to all manufacturers figures representing all direct factory costs, depreciation, plus a proper proportion of all indirect factory expenses, in accordance with the share each class of products should bear. Such figures shall be the lowest reasonable cost of manufacturers, large and small, throughout the industry, and shall be used as the minimum processing cost by all members of the industry.

That industry was said at the time to have 2,000 firms. The code authority sent questionnaires to 160 of them, received replies from 74, threw out 34 of the replies as inadequate, and used 40, which included no return from du Pont's, involving no costs for some products, but they fixed minimum costs below which it was thereafter illegal to sell. In some cases——

The CHAIRMAN (interposing). Now, you want us to assume that these were artificial costs?

Dr. WILCOX. It seems to me that they must have been artificial costs.

The CHAIRMAN. And that this was manifest in most of the codes?

Dr. WILCOX. Well, the cases that I have picked are cases that prove my point. Not all of the code cost provisions are as plain as these.

The CHAIRMAN. Well, would the inference be justified that the tendency at least in the codes was to fix an artificially high cost basis?

Dr. WILCOX. Yes, I believe that is true. In some cases the action of the code authority went beyond that permitted in the code. In the wallpaper manufacturing industry a schedule of prices was developed at a conference at Lake George, N. Y., and sale below these prices was regarded as sale below cost. The graphic arts code authorized the code authority to determine an average cost for the industry, which, when approved by the N. R. A., should be a minimum below which no one could sell. It further authorized the code authority to publish price determination schedules which, when approved, should serve as guides for fair value. The code authority, in fact, published and circulated a price book called the Franklin Catalog, which was never approved by the N. R. A., which divisional code authorities enforced on printers as what they called the N. R. A. rates.

A hundred and eighty-eight codes provided for price-fixing in the case of an emergency. The code for the retail solid fuels industry, for instance, said:

> Whenever, upon complaint or upon its own initiative without complaint, the National Code Authority is of the opinion that an emergency exists within the industry in that destructive price-cutting is being engaged in, it shall certify such conclusion to the divisional code authorities.

The procedure thereafter was to be that the divisional code authorities would hold hearings to determine whether an emergency in fact existed, then investigate costs within the industry and determine the lowest reasonable cost of delivering coal. Thereafter, sale below the lowest reasonable cost was a violation of the code. No clear principle governed the definition of destructive price-cutting or emergency. It was said in the N. R. A. that an emergency is something that is declared by a code authority.

Mr. PIKE. Is that a fair question to ask—did they declare an emergency, do you happen to remember?

Dr. WILCOX. The retail solid fuels code was approved one day and the emergency was declared the next day.

Mr. PIKE. That was normal?

Dr. WILCOX. They arrived at that opinion with rapidity.

Mr. HENDERSON. And I might say that they asked the question, how long has this emergency been going on, and they said, "Why, it has been going on ever since before the war."

Dr. WILCOX. They said there had always been an emergency in the retail solid fuels industry. Emergencies were declared in eight industries besides retail solid fuels: Cast-iron soil pipe, lumber and timber products, tires, waste paper, wholesale tobacco, retail tobacco, agricultural insecticide and fungicide, and ice, in a number of urban markets.

Twelve codes gave the code authority outright power to fix minimum prices without reference to cost of production. The bituminous coal code carried this provision:

> The selling of coal under a fair market price is hereby declared to be an unfair competitive practice and in violation of this code. The fair market price of coal shall be the minimum prices which may be established by marketing agencies or by the respective code authorities. The term "marketing agency" shall include any trade association of coal producers.

Similar provisions were contained in the codes for lumber and timber, petroleum, cigar containers, cigar manufacturing, lead pencils, motorbusses, domestic freight forwarding, inland water carriers, fur dressing and dyeing, cleaning and dyeing, and in those for certain wholesale and retail trades.

Four hundred and twenty-two codes provided for open price filing systems. Nearly all of these systems would have been held by the courts to violate the antitrust laws.

Mr. HENDERSON. That is, based on the decisions on open price in the maple flooring cases and in the other three cases during the twenties?

Dr. WILCOX. That is what I meant.

The CHAIRMAN. Well, of course, this was a substitute for the antitrust laws; in other words, the antitrust laws were set aside?

Dr. WILCOX. That's right.

The CHAIRMAN. So far as the codes were concerned?

Dr. Wilcox. That's right. I am merely saying that these arrangements were of a character that before the enactment of this legislation would have been outlawed.

Mr. Henderson. I am not so sure, Mr. Chairman, that all of these did get the benefit of the clause in the National Recovery Act, which specifically——

The Chairman (interposing). Well, I hope, so far as they were approved by the approving authority, they had the benefit of the exemption.

Mr. Henderson. I wasn't the approving authority; I was the reviewing authority.

The Chairman. Dr. Wilcox, did the N. R. A. have any virtues at all in your opinion as a member of its staff?

Dr. Wilcox. The vices stand out in the center of my attention more clearly than the virtues. I think one might find virtues upon careful examination. [Laughter.]

The Chairman. But you would have to take careful examination, is that the implication?

Dr. Wilcox. Yes.

Mr. Henderson. Doesn't that depend on your attitude toward the dominating economic policy of the country? If you give that answer, doesn't that mean you are practically declaring for a maintenance of competition?

Dr. Wilcox. Yes. It is a matter of opinion, certainly.

Mr. Henderson. And there is, I think, the testimony this week and other weeks, of many earnest-minded businessmen who believe we have got to go to a control of competitive status, is that not true?

Dr. Wilcox. I have heard such opinions expressed.

Mr. Henderson. Well, I have heard a lot of them at this table, and if that should come to be the prevailing, driving force of our economy, then the N. R. A. experience will have been decidedly illuminating as an experiment, isn't that correct?

Dr. Wilcox. I should say so.

The Chairman. Well, was there a rising tide of criticism of N. R. A. among the businessmen who were affected by it, at the time the Supreme Court decision was rendered?

Dr. Wilcox. There was a rising tide of criticism of N. R. A. among all groups by 1935.

The Chairman. Yes; but I am thinking now of businessmen exclusively.

Dr. Wilcox. Yes; I should say so.

The Chairman. Well, would that justify the inference that businessmen were turning away from this type of organized control of production and of price, and turning back toward the notion of open competition?

Dr. Wilcox. Not necessarily. Different people were dissatisfied for different reasons, because the arrangements that they had hoped to get were never approved by the approving officials, or because they were not implemented or because they were not extended, and the arrangements in some cases operated to the disadvantage of some groups that then protested. The reasons for dissatisfaction with the set-up were so diverse that I think it is scarcely possible to generalize as to them.

The CHAIRMAN. And you couldn't generalize then on the basis of resentment against or disapproval of these practices which you are now discussing?

Dr. WILCOX. In some cases, that was the basis of criticism.

Mr. HENDERSON. But in the majority of cases, it was not a turning back to the American tradition of competition, was it?

Dr. WILCOX. Well, if you take the type of objection raised against code provisions by the economist of R. H. Macy & Co. or by the economist representing the Mail Order Association of America, in general it was.

Mr. HENDERSON. But they were in the small minority, were they not? Wasn't the complaint that the codes did not go far enough and that you couldn't get the type of court action which would give them enforceability?

Dr. WILCOX. I should say that was the case; yes.

Dr. KREPS. To refresh your memory, Dr. Wilcox, I have here a pamphlet entitled, "Policies Supported as in the Public Interest," by the Chamber of Commerce of the United States, published in 1936, in which they state on page 3:

> The anti-trust law shall be modified so as to make clear that the laws permit agreements increasing the possibilities of keeping production related to consumption. Modification of the anti-trust laws should include provision for Government supervision in order that agreements which are not in the public interest in stabilization of business operation and employment may be nullified. Businesses desiring to combine should have opportunity to ascertain from a suitable Government authority whether or not the proposed combination will be in violation of the anti-trust laws. Each industry shall be permitted to formulate and to put into effect rules of fair competition which receive governmental approval. The governmental agency named by the President should have only the power of approval or veto of such laws, w thout power of modification or imposition, but with power to indicate conditions of approval. There should be opportunity for members of an industry to enter into agreements other than rules which when approved by the governmental agency, shall be enforceable against parties to the agreement. Rules of fair competition formulated by a clearly preponderant part of an industry as suitable for the whole industry, with due consideration for small units and approved by the governmental agency, should be enforceable against all concerns in the industry.

Now, is it your impression that these rules that would stabilize competition differ materially from the rules which you have thus far outlined for us; in other words, it wasn't that businessmen were dissatisfied with the opportunity to combine, it was that they were dissatisfied with the amount of governmental supervision over such opportunity to determine collectively what measures would stabilize industry and adjust production to consumption?

Dr. WILCOX. What is the date of that statement?

Dr. KREPS. 1936.

The CHAIRMAN. From what was that quoted?

Dr. KREPS. Quoted from the pamphlet by the Chamber of Commerce of the United States, Policies Supported as in the Public Interest. A substantially similar provision occurs in the 1939 edition.

Dr. WILCOX. I should say that that indicated that the inference concerning which the chairman spoke could not be drawn.

The CHAIRMAN. Dr. Kreps wants us to understand, I take it, that the criticism of the N. R. A. proceeded largely from the dissatisfaction with the refusal of the reviewing authorities to approve all of the trade relationships and rules that were desired.

Dr. KREPS. I would make it broader than that. They were dissatisfied with all acts of Government, including what the Government approved as well as what it refused, in these N. R. A. agreements. I do not doubt that the emergence on the N. R. A. Board of a majority genuinely interested in the welfare of consumers and laborers may have been conducive to the lack of interest on the part of business in the N. R. A. device. Business did not like the wage-hour provisions and in particular resented section 7A which provided for collective bargaining. As the quotation from the pamphlet issued by the United States Chamber of Commerce shows, business liked the cartel features of N. R. A., the production and price controls. The N. R. A. was a quid pro quo. The Government gave business the right to combine if business would meet certain wage-hour requirements. Business then liked and still desires to get together in production, sales, and prices. What business did not like was the noncartel features of N. R. A.

The VICE CHAIRMAN. If I caught correctly what you read, it seems, too, that they were making some request for additional Government intervention for the purpose of giving them advance clearance with regard to what they were going to do, and probably some coercion from a governmental agency to compel their individual members to comply with the joint determination?

Dr. KREPS. That is correct.

Mr. HENDERSON. In addition, Congressman, and Dr. Kreps, the 1936 edition was very plain about compelling even those who were not parties to the agreement, the minority who did not subscribe to the agreement, to be bound by the terms of the agreement of the majority, which was the crucial issue, of course, in the code. You remember the chiseling 10 percent usually upset the apple cart in a code, particularly when you couldn't get enough enforcement officers to bring all the chiselers to book.

The VICE CHAIRMAN. They wanted the aid of a governmental agency to coerce the nonagreeing members of the trade?

Mr. HENDERSON. That's right.

The VICE CHAIRMAN. Well, it seems to me that we are perhaps now at the most important part of this inquiry. It is clear that there is a difference of opinion in this country. We are at the point where we have got to make a decision, probably, as to whether or not we are to have agreements recognized by the Government, probably supervised by the Government, with maybe a certain amount of coercion exercised by the Government, in order to have competition. Do you propose to discuss more directly than you have yet discussed them, these two conflicting economic and governmental theories which are now being debated in this country, as to what is the best thing to do about it?

Dr. WILCOX. The material that I have assembled is addressed to the question, whether arrangements have existed in the United States or do exist in the United States, that can properly be called cartels. I should be glad——

The VICE CHAIRMAN (interposing). Well, the fact as to whether or not these organizations may be called cartels?

Dr. WILCOX. That is right.

The VICE CHAIRMAN. Well, now, why are we so much interested in what you name a thing?

Dr. KREPS. Possibly I can answer that question, Mr. Congressman, in that these cartel-like arrangements that we have here are similar to certain cartel developments that occurred abroad. We are interested here because they represent a type of activity quite universal throughout the modern world, with respect to which diverse governmental policies have been put into effect.

The VICE CHAIRMAN. Then are you going to deal at all, in the examination of these agreements, with characteristics distinctive of cartels, with the possible failure of a complete development of what ought to have been the governmental policy in that situation? I make that statement to illustrate what you no doubt appreciate is in my mind about it.

Dr. KREPS. I think I understand. We are limiting this presentation on cartels completely to a factual exposition of what cartels are, what cartel-like arrangements are, what their economic consequences have been, and what their political consequences are abroad.

The VICE CHAIRMAN. By political consequence do you mean their repercussions in their several countries?

Dr. KREPS. That is right.

The VICE CHAIRMAN. Do you draw any relationship between the economic development in Germany, for instance, and the political development in Germany?

Dr. KREPS. We have an expert witness who will testify presumably tomorrow, who will give us the benefit of his 20 years' study on that problem.

The VICE CHAIRMAN. I will try to bear all that in mind and restrain my inquiries, because I understand, of course, one witness can't cover every field.

Dr. WILCOX. I was speaking of the character of the open price filing systems in N. R. A. codes. Of the 422 codes that had open price filing systems, 161 gave no information to buyers, all of them identified sellers, some of them gave sellers on the code authority prior access to the file, probably all of them required adherence to filed prices, and 297 of them included a waiting period.

Mr. HENDERSON. That is what was known, I believe, as a period of intimidation, was it not, in the N. R. A.?

Dr. WILCOX. The effect of forcing a seller to wait before he could sell at the lower price which he had filed of course gave other sellers an opportunity to suggest to him that the price should not be cut and if he did cut the price they would meet it, and consequently there would be no advantage to him in cutting it.

Mr. HENDERSON. These provisions for open-price filing were tied in with other provisions, were they not? As I recall, nearly every code had a no-selling-below-cost provision. It was the intent to have a uniform cost-accounting system for the determination of costs. Then with an open price reporting system the prices reported by every member were available to all others and there was a 10-day waiting period in which each competitor could check and could raise the question whether that price was below cost. The intent was with the uniform accounting system that he would have a ready reckoner as to whether the price offered was below cost, and all three things tied in together.

Dr. Wilcox. It was the function of the open price reporting system to implement the no-sales-below-cost provision. In the iron and steel code appeared this provision:

> The board of directors shall have the power to investigate any base price for any product filed by any member of the code. If the board of directors after such investigation shall determine that such base price is an unfair base price for such product, the board of directors may require the member of the code to file a new list showing a fair base price. If such member of the code shall not within ten days file a new list showing such fair base price, the board of directors shall have the power to fix a fair base price.

Mr. Pike. "Fair" meaning one that gives him a profit?

Dr. Wilcox. I can't say what was in the minds of the members of the industry when they wrote that word into the code.

Mr. Pike. There was no definition of "fair"?

Dr. Wilcox. It is not defined.

Mr. Henderson. Who constituted the code authority?

Dr. Wilcox. The code authority in this case was the Iron and Steel Institute.

In the tag industry, members of the industry who did not choose to file prices were bound according to the code by the lowest prices and most favorable terms on file. In practice, only one or two large concerns filed prices, and these prices were compiled into a price book which was circulated to the rest of the industry to inform them of the prices they must follow unless and until they filed prices of their own.

The Vice Chairman. Now, wait a minute. You say that the prices were filed by a very few of the big industries, and those prices were sent out to the other persons engaged in the same industry?

Dr. Wilcox. This is one industry, the paper-tag industry, pasteboard tags that are affixed to merchandise. In this industry the provision was that if you did not file a price yourself, if one seller did not himself file a price, he was then bound by the lowest price on file by any seller. The practice in the industry was that only one seller filed any price. Thereupon everyone else in the industry was bound by his price.

The Vice Chairman. Who selected the one who was to file the price?

Dr. Wilcox. I think perhaps it was a process of self-selection. I don't know.

The Vice Chairman. Yes; but how did he arrange that he could get there first?

Dr. Wilcox. I can't answer that. My authority for this is the investigation of the N. R. A. before the Senate.

Mr. Henderson. Of which Senator King was a member.

Dr. Wilcox. Page 870 of that record.

That completes what I had to say about the N. R. A. codes.

CARTELS IN THE UNITED STATES BEFORE AND AFTER THE N. R. A.

Dr. Wilcox. A similar arrangement was carried over from the bituminous coal code into the Bituminous Coal Act of 1935 and appears again in the Bituminous Coal Act of 1937. In this act, part 2 states:

> The Commission shall have the power to prescribe for code members minimum and maximum prices,

and then goes on to say:

> Said prices shall be proposed so as to yield a return per net ton equal as nearly as may be to the weighted average of the total cost per net ton of the tonnage. The computation of the total cost shall include the cost of labor, supplies, power, taxes, insurance, workmen's compensation, royalties, depreciation and depletion, and all other direct expenses of production, coal operators association dues, District Board assessments for Board operating expenses, and reasonable costs of selling and the cost of administration.

Dr. KREPS. Are the foregoing set-ups properly to be described as cartels?

Dr. WILCOX. They fall within the broader definition of cartel, which I quoted at the outset.

Dr. KREPS. In other words, they are what Dr. von Beckerath and other authorities would call term-fixing or price-fixing cartels.

Dr. WILCOX. That is right.

Dr. KREPS. I take it, then, you have so far not treated of cartels in the stricter sense of production control, sales control, and the like.

Dr. WILCOX. That is right. The stricter definition of the term "cartel" would confine it to organizations which assign customers among sellers or divide markets among sellers or allocate production or sales quotas among sellers, or organizations in which the members market their entire output through a common sales office which assigns quotas and makes payments, or organizations which enforce quotas by pooling earnings or by the imposition of money penalties.

The VICE CHAIRMAN. You use the disjunctive there frequently. Does it more frequently or not occur that all those characteristics which you have disjoined apply to cartels?

Dr. WILCOX. More than one of these characteristics may apply, that is, one organization may engage in more than one of these practices. I am following here the list used by Dr. Herbert von Beckerath in his book on Modern Industrial Organization, that is, I merely am employing his classification of types of cartels.

The VICE CHAIRMAN. If you had an organization that did only one of those things—let's go over those things.

Dr. WILCOX. Assign customers among dealers?

The VICE CHAIRMAN. Assign customers among sellers without at all dealing with price or production, that would work it out the same way, wouldn't it?

Dr. WILCOX. It does affect price and production, you see, because the sellers no longer compete to sell to different buyers, they divide them up on some other basis.

The VICE CHAIRMAN. As a matter of fact, when people get together to do either one of those things, isn't it usual that they pretty soon work into the whole thing?

Dr. WILCOX. I should think that one thing leads to another; yes, as I think I shall suggest in some cases.

The VICE CHAIRMAN. When a cartel is simply one in which people get together to control the market, whatever seems to be necessary in a given situation is about what they usually do, isn't it? They are not interested in just doing one of these things; they are interested in the objectives, aren't they?

Dr. WILCOX. The objective is protection of existing investment and larger profits for the firms in the organization.

The VICE CHAIRMAN. How much more are we going to learn by talking about it? It is most interesting; I am interested in the whole thing.

Mr. HENDERSON. I think, Mr. Chairman, the country doesn't know the extent to which it is creeping, via various kinds of cartel-like arrangements, into an entirely different structure of industry from that contemplated by the idea of free competition.

The VICE CHAIRMAN. It is a very informative statement. I think it is fine. There are a heap of big words in there I can use in the campaign. It's all right, I like it.

Dr. KREPS. I take it there are in the United States, then, sales cartels, or syndicate arrangements?

Dr. WILCOX. The sales cartel or syndicate arrangement which employs the device of a common selling agency which fixes total output and assigns quotas and allots orders, the arrangement which is quite common in Germany, has not been extensively used in the United States. There have, however, been cases of arrangements of this type. I have a list for presentation.

Dr. KREPS. Would you like to have it submitted as an exhibit?

Dr. WILCOX. Yes.

Dr. KREPS. I would like to submit "Sales Cartel or Syndicate Arrangements in the United States."

(Representative Sumners assumed the Chair.)

The VICE CHAIRMAN. It may be admitted.

(The document referred to was marked "Exhibit No. 2174" and is included in the appendix on p. 13562.)

Dr. WILCOX. This indicates the existence in the United States of common selling agency arrangements as far as I have been able to collect them, since 1875. In the oil industry around 1875, in the wallpaper industry in 1898–1909, in the sheet music and player piano roll business in 1922, in the white glazed paper industry in 1921, in the cattle and calf hair industry in 1927, in the sardine industry in 1927, in the bituminous coal industry in 1933, in connection with the public performance of copyrighted music in 1934, in the concrete pipe industry in 1938, and in the candy stick industry in 1939. The only one of these formally to be approved by the courts was the common selling agency in bituminous coal in the *Appalachian Coals* decision in 1933.

The other types of market-sharing arrangements, however, have made their appearance more frequently in the United States than the common selling agency. We have had, for instance, cartels which assign customers among sellers. I refer to the statement made before this committee by Mr. Thurman Arnold on July 7, 1939.[1] Mr. Arnold said:

> Contractors who erect buildings add their own systems of restraint. Many contracting groups maintain bid depositories in which copies of all bids and estimates are supposed to be filed prior to the award of the contract. In some of these depositories the bids are opened before the contract is let and the information thus obtained is used to coerce low bidders to withdraw or raise their bids. Other contractor groups maintain central estimating bureaus which calculate the cost of the job and supply the various contractors with the bids they are to make. In still other groups a central bureau determines the specifications for material and labor to be included in the bid, and the contractor is expected to apply

[1] See Hearings, Part 11, p. 5150.

standard prices and labor rates to these specifications and thereby to arrive at the same bid as everyone else. Some bidding rings determine in advance which contractor is to get the job and arrange their bids so that everyone else bids higher than he.

The Procurement Division of the Treasury has recently prepared a report, a summary of which has been released by the Committee, which indicates that during a 12-month period between December 1937 and November 1938 nearly one-quarter of the bid openings in that period involved the receipt of identical bids from different sellers. In this period there were 332,000 bid openings of which 76,000, or 24.1 percent, were instances of the receipt of identical bids. This covered a long list of industries including all of the major categories of industries from which the Government makes purchases.

Where identical bids are thus submitted by a number of different sellers the Government has to decide some way who is going to get the business. It is the practice in this case with most agencies to award the contract by lot. Thus the parties to a uniform bidding compact or a tacit understanding are assured over a period of time of an equal share in the contracts awarded, that is by pure chance. If they match pennies or throw dice or draw cards, every seller in the group will get his share over a time.

Mr. O'Connell. May I interrupt there a moment? I understand that that is the accepted way of dealing with identical bids. There is one rather outstanding exception to that, however, and it might be of interest to the committee to know that the Secretary of Interior over a period of time adopted a policy of making the award in the event of the receipt of identical bids to the bidder that incurred the greatest expense of transportation in connection with the supplying of materials, the theory, I take it, being that if he had to deal with people who were operating in collusion he would like to make it as unprofitable for them to reduce the profit margin as much as he could.

Dr. Kreps. Or rather stimulate additional employment on the railroads, and so on.

Mr. O'Connell. I believe both factors were present.

The Vice Chairman. Under the law of average the one who would supply the Government's business would be the one who would have to have a higher price eventually if he stayed in business because his overhead would be higher.

Dr. Wilcox. There is a case resulting in a cease-and-desist order by the Federal Trade Commission in which four glass distributors in the St. Louis area agreed on formulas for computing bids, exchanged information on one another's bids, and determined among themselves which firm was to get the contract. Information on that case is in the hearings of this committee on pages 2351 to 2352.[1]

In the case of the *United States* v. *The Textile Refinishers Association*, in 1936, which resulted in a consent decree, the Textile Refinishers Association included in its membership 30 firms, substantially all of the textile refinishers in New York City. The members of the association agreed on prices, terms, and conditions of sale, setting prices which were uniform, excessive, and noncompetitive, according to the petition. They allotted the business of each manufacturer to a member of the association and manufacturers were effectively compelled to have their work done by the designated refinishers.

[1] Hearings, Part 5-A.

To turn now to cases of cartels dividing markets among sellers. In the case of the *United States* v. *The National Retail Credit Association*, which resulted in a consent decree in 1933, the National Retail Credit Association had about 20,000 members, 18,000 of them were granters of credit and about 1,300 of them were consumer credit-reporting agencies.

The service department committee of the National Retail Credit Association devised a plan for the division of the national credit market by regions. These regions were assigned to member agencies as their exclusive reporting territories. Member agencies agreed not to gather credit information or make credit reports in other regions except through the credit agency to which the region was assigned. Credit-granting members agreed to furnish information on the credit of the consumers only to the credit agency to which they were affiliated, and which was the member of the association having exclusive rights in the territory.

There were also in the N. R. A. codes a number of provisions which had the effect of dividing territory among the participants. There were zone protection provisions, dividing the country into zones. In some cases producers outside the zone were forbidden to sell within the zone at prices below those filed by producers within the zone. In other cases producers outside the zone were forbidden to sell at prices below the minimum fixed for producers in the zone by some price-fixing authority under the code. There was a provision in the corrugated and fiber shipping container code to the effect that the practice of certain manufacturers and sellers shipping quantities of merchandise into territories outside of their normal territories and of selling such merchandise below the general market price prevailing in such other territories is condemned as unfair.

There were antidumping provisions in 23 codes. In the funeral supply industry code, for instance, there was a prohibition against selling the products of this industry or offering the same for sale in a market or trade area other than that in which the seller is usually and normally engaged, at prices lower than the price at which such products are customarily sold or offered for sale in the seller's normal market. The code authority had the power to define normal market areas, and the prices at which products were customarily sold. This provision, of course, could be employed to check outside competition.

There was also in some 86 codes prohibition of freight allowances which operated to prevent sellers from entering distant markets by absorbing freight.

More recently in the case of the Building Material Dealers Alliance, which resulted in a cease-and-desist order by the Federal Trade Commission, the case being described in the hearings of this committee, pages 2331–2333,[1] eight building material trade associations centered in the Middle States and Ohio, and the National Federation of Builders Supply Associations, comprising federated associations located in some 32 States, adopted a recommendation that organized units should determine territories for member cement dealers and that manufacturers should not ship to dealers outside of the prescribed dealer territory.

In the window glass industry, a case which resulted in a cease and desist order in 1937, recorded on pages 2330–2331 of the hearings,[1]

[1] Hearings, Part 5-A.

the Window Glass Manufacturers Association and the National Glass Distributors Association had agreements and understandings which divided distributors into two classes: quantity buyers and car-lot buyers. The manufacturers association made the final decision as to the classification of the buyers. The manufacturers published a price list only for quantity buyers; only quantity buyers could purchase directly from manufacturers. Car-lot buyers and others were compelled to buy from or through quantity buyers. Quantity buyers got a discount of 7½ percent not granted to other buyers.

Each quantity buyer under this system confined his purchases and sales to a definite area.

The VICE CHAIRMAN. Did this quantity buyer retail?

Dr. WILCOX. He would sell to other distributors; in general these were wholesalers.

The VICE CHAIRMAN. Was he permitted to distribute at retail? I would like to know whether they made a distinction between retailers and wholesalers or made a distinction among retailers.

Dr. WILCOX. I don't know whether that distinction can be clearly drawn in this case. I think it is a distinction between wholesalers and retailers in general. The record does not indicate. The point I wanted to make here is that the quantity buyers, if they can be defined as wholesalers, were limited to specific territories and they were getting a discount, a lower price than other buyers got.

These are all cases of division of territory. There are cartels which allocate production or sales quotas among sellers and there have been in the United States a number of arrangements that might come under this definition. In the window-glass industry, prior to 1923, there existed an employment agreement negotiated between the National Window Glass Manufacturers Association and a trade union of window-glass workers. Under this arrangement the manufacturers were divided into two groups, and each group was to operate only 6 months of the year; at any one time only half of the plants would be in operation. No factory in effect operated more than 4½ months a year. The agreement fixed the dates between which each shop might operate.

The VICE CHAIRMAN. How long did that agreement last?

Dr. WILCOX. That agreement was ended in 1923. I don't have here the year in which it originated.

The VICE CHAIRMAN. Did it end as the result of governmental action or voluntarily?

Dr. WILCOX. A case was brought before the courts and appealed to the Supreme Court and the Supreme Court in its decision did not condemn the arrangement.

Mr. PIKE. But they did close it up right after the decision?

Dr. WILCOX. The arrangement was discontinued by the industry, yes.

Mr. PIKE. Right after the Supreme Court decision was made?

Dr. WILCOX. Even before the Supreme Court decision. They had first had decisions in the lower courts.

In the cotton textile industry prior to 1930, or starting in 1930, the Cotton Textile Institute sought a pledge from firms in the industry not to operate day shifts more than 55 hours a week or night shifts more than 50 hours a week. This was called the 55–50 plan, and was adopted by 75 percent of the industry. Later on an attempt was

made to eliminate all night operations in the industry, and still later the institute encouraged branches of the industry to adopt curtailment policies; print cloth mills, for example, arranged to reduce output from 10 to 50 percent. The operation of these agreements was impeded by contrary policies of noncooperating mills.

Evidence has already been offered before the committee of the existence of a proportionate restriction of output among producers of copper in the United States between 1930 and 1932.

All of these are quota-like arrangements existing prior to the codes under the N. R. A. There were also quota systems operating under N. R. A. codes. Sixty of the codes placed limits on the number of hours a day or a week that a plant or machinery might be in operation. Forty-three of these were in the textile industries, five in the paper industries, and there were a dozen others including glass containers, cast-iron soil pipe, sewing machines, and canning and packing machinery. The effect of this arrangement is to establish quota limits proportionate to productive capacity. In some textile industries permissible hours of operation were reduced by administrative action below those allowed in the code. The synthetic yarn staples industry was permitted to close down entirely for a period of 8 weeks. The device restricts output to demand at a current price and gives each firm a share of the business.

There were under five codes outright quota systems. The lumber code set up a code authority called the Emergency National Committee and provided:

> That the committee shall determine, and from time to time revise and not less frequently than every three months, estimates of expected consumption, including exports of lumber and timber products of each species, and based thereon it shall have the authority to establish and from time to time to revise production quotas for the divisions of the lumber and timber preducts industries, and by its designated agencies within the divisions for the persons engaged in said industries. Said quotas as between divisions shall be substantially in proportion to the shipments of each division during the representative period to be determined by said committee. Said quotas for persons engaged in the industry shall be determined by the designated agencies in accordance with an equitable method of allocation approved by the committee, whether on the basis of shipments, existing hourly capacity or otherwise. Persons subject to the jurisdiction of this code shall not during the period therein specified produce or manufacture lumber and timber products in excess of their respective allotments under the quota.

Dr. Kreps. Dr. Wilcox, are all the other quota systems under the N. R. A. for petroleum, copper, glass container, Atlantic mackerel fishing, substantially similar?

Dr. Wilcox. The arrangements are substantially similar in character. That for the petroleum code is given in article 3, sections 3 and 5, and in article 4 of the code, and provided for a direct limitation on petroleum production on a quota basis, and also for a limitation on petroleum refining.

Dr. Kreps. Would you like to take the materials you have and put them together in the form of an exhibit submitted for the record?

(The documents referred to were marked "Exhibit No. 2175" and are included in the appendix on p. 13563.)

Dr. Wilcox. That exhibit covers the provision of the petroleum code and a provision in the copper code, where it should be noted that a different situation obtained; namely, the firms in the industry

were indicated by name and the quota of each firm expressed in terms of an absolute sum.

In the Atlantic mackerel fishing industry I do not have the exact provisions of the code. That code contained provisions for limiting the catch of mackerel to a point where production would balance consumer demand at a price most advantageous to the fisherman. The executive committee of the code was empowered to estimate consumer demand and to issue regulations to limit the catch of mackerel to that figure. The committee successively placed a limit upon the number of pounds which any boat could catch and sell on a single trip, then divided the boats into two squadrons each of which was permitted to fish on alternate weeks, and then limited the amount of mackerel which could be landed by any boat during any one week.

The quota systems were contemplated but not established in the codes for the cement industry, the iron and steel industry, the corrugated and solid fiber shipping container industry, the cotton garment industry, the California sardine industry, the folding-paper-box industry, the machine waste industry, the pulp and paper industry, and the piano-manufacturing industry.

Proposals for the control of the output of newsprint were later advanced also, but were bitterly opposed by the newspaper publishers. I come now to quota arrangements existing since the termination of the N. R. A.

(Senator O'Mahoney resumed the Chair.)

The CHAIRMAN. Now, can't we lump those into an exhibit? You see, we are trying to shorten the time a bit, Dr. Wilcox. You are merely discussing the history of these various associations?

Dr. WILCOX. These are all of them quite recent cases, Mr. Chairman; 1938, 1939, 1940. That is, they describe current practices in the main in important industries.

The CHAIRMAN. Now, have you written that out?

Dr. WILCOX. I have it only in notes; I don't have it in the form at the moment to submit a copy. The first case is that of the Independent Refiners Association of California, known as the Pacific Coast Oil Cartel. The background of this case is a quota arrangement which existed prior to 1930 in California among refiners and was outlawed by a consent decree in that year. The program was revived under the N. R. A. and the arrangement went by the name of the Pacific Coast Oil Cartel, which is the only case I know of in which the word "cartel" has been used in this country to describe these arrangements.

It was ended with the Schechter decision. The arrangement was revived in 1936. The General Petroleum Corporation and six other major refining companies at that time refined about 70 percent of the gasoline on the Pacific coast and sold about 85 percent. They were members of an association called the Fair Practices Association. There were 30 independent refiners who refined about 30 percent of the gasoline and sold to retailers and consumers about 15 percent. Of these, 27 are members of the Independent Refiners Association of California, Inc.

Some independents sold all of their gasoline and all of them sold part of it to the Independent Refiners Association. The General Petroleum Corporation and other majors bought large quantities of gasoline from independent refiners, largely through the refiners association, at arbitrarily high and noncompetitive prices, in the words of the

indictment returned in the District Court of the United States for the Southern District of California on November 14, 1939.

This subsidy in effect was given to the independents by the majors as an inducement not to post lower prices than those posted by the majors. If the posted price of the independent was less than a certain figure, he was paid less for his gasoline by the Independent Refiners Association. The Fair Practices Association for the majors and the Independent Refiners Association for the independents made surveys of prices posted by retailers. These surveys were used to discover price-cutting retailers who were coerced or compelled to sell at the prices set by the suppliers, either by threats to suspend or actual suspension of gasoline deliveries.

The plan included a system of production quotas.

The Independent Refiners Association assigned, and independents accepted, refining quotas or allowables. The Independent Refiners Association advised each member monthly of the estimated consumption for the next month, and the percentage he could produce. These percentages were substantially the same as those which obtained under the N. R. A. code.

Another case of a trade association functioning as a quota cartel is that of the Standard Container Manufacturers Association, which is outlined in the hearings before this committee at page 2358. Another case is indicated in an information filed in the District Court of the United States for the Western District of South Carolina, Greenville Division, on January 2, 1940; in this case five men, members of the curtailment program committee in charge of the print cloth curtailment program of the print cloth industry, which includes 75 cotton mills owned and operated by approximately 68 firms engaged in the manufacture of print cloths, between March and September 1939, induced print cloth mills representing not less than 95 percent of all looms operating in the United States on print cloths, to participate in a print cloth curtailment program which required each mill to curtail production of such print cloth during the months of July to September 1939 to not more——

The Chairman (interposing). I assume you mean it is alleged that this was done?

Dr. Wilcox. I do mean that. I should have said it is alleged by this information that, and so forth.

Mr. Pike. That is true in that Independent Refiners Association?

Dr. Wilcox. That is also true in the *Independent Refiners Association case*. The other case I mentioned is a cease and desist order issued in that case. To resume, to limit production during this period to not more than 75 percent of what otherwise would be the normal production of such mill for such period, and during such period to limit all sales of such goods produced and not to sell or otherwise dispose of any stocks or inventories except as authorized by the members of the committee.

I should like to offer for submission a public statement made by the Department of Justice on June 27, 1939, relative to the activities of management engineering firms, in the administration of trade associations.

The Chairman. Is it desired to make that part of the record? It seems to the Chair that it might well be.

Dr. Kreps. I think it ought to be submitted as an exhibit.

The CHAIRMAN. It will be admitted as an exhibit if there is no objection.

(The statement referred to was marked "Exhibit No. 2176" and is included in the appendix on p. 13573.)

Dr. WILCOX. I had intended to read that but am merely submitting it to save time. I should like to go into a little more detail in one case. This is the case of the National Container Association, and my information is drawn from an indictment returned in the District Court of the United States for the Southern District of New York on August 9, 1939. In this indictment it is charged that the Stevenson Corporation of New York, of which Charles R. Stevenson is president, doing business under the firm name of Stevenson, Jordan & Harrison, is engaged in the business of organizing, advising, directing, and managing trade associations. It provides from its staff the officials who manage the affairs of the National Containers Association and 12 regional container associations.

The 110 members of the national association and 165 members of the regional associations are engaged in the business of manufacturing and distributing shipping containers and other products made from corrugated and solid fiberboard. The Stevenson Corporation applied in its administration of this trade association what was called the basic unit principle or basic unit plan, which involved the preparation of industry estimating manuals containing formulas, factors, and differentials which cover all items of cost, including the cost of materials, charges for manufacturing operations and charges for delivery.

These formulas, factors, and differentials do not represent the costs of any manufacturer, but are arbitrary amounts agreed on by the members of the association with the active participation and advice of its officials. They are used in establishing selling prices. The associations and the staff members of Stevenson, Jordan & Harrison urged association members to use the manual, dissuaded them from using their actual costs as a basis of selling prices, and insisted that the arbitrary figures be used.

The CHAIRMAN. The presentation of this matter and similar matter, of course, is not to be understood as indicating any belief on your part that there was an actual violation of law, or that the committee in itself is intimating that there was such a violation?

Dr. WILCOX. That is true.

The CHAIRMAN. I presume that you are presenting this merely as illustrative matter; whether or not there was a violation involved will be determined by the courts.

Dr. WILCOX. That is true.

According to the indictment the arrangement is enforced by a plan of invoice or order analysis, each association member submitting to his regional association copies of invoices or orders giving complete details on every sale.

The regional association officials keep records to insure submission of this information and follow up members failing to submit it; verify the information submitted, and apply the formulas, factors, and differentials contained in the industry estimating manual to the member's prices to determine if he is adhering to them in fixing his charges.

It was necessary to reduce these prices to a basic unit because the products manufactured by the industry are made to order in many different styles and types. The arrangement enables each member to

compare his prices with the average of the industry. The association sometimes furnished members with lists of invoices whose basic unit was below the average. They prepared and disseminated among members reports and charts comparing each member's base unit with the average. These reports and charts were discussed at frequent meetings of regional associations and members with base prices below the average were urged to raise them.

The records of members were checked by traveling auditors and engineers, employees of Stevenson, Jordan & Harrison to, verify information submitted, call attention to below-average prices, and promote the use of the industry-estimating manual. The members filed prices which were not revealed to buyers or to the public.

The arrangement also involved, according to the indictment, a plan variously designated as prorationing of business, equitable sharing of available business, and live and let live system designed to limit production by assigning a quota to each member. Stevenson, Jordan & Harrison made surveys of the volume of business transacted by association members during normal or base periods, usually 3 years, to determine the proportion of business transacted by each member within each zone. They assigned to each member a quota, a fixed percentage of the total volume of business transacted within the zone. The association members agreed that each would accept and adhere to the quota and supply invoice copies and other reports to regional associations in order to enable Stevenson, Jordan & Harrison to determine whether members were in fact adhering to their quotas. The association staffs prepared periodic reports and graphic charts showing combined volume of deliveries in each zone, and deliveries of each member in the zone every 2 weeks and for the current year.

The Chairman. Now this was clearly, even as alleged, an attempt upon the part of these members to adjust productive capacity to consumption in such a manner as to enable those who were distributing the commodity to operate at a profit?

Dr. Wilcox. It is a plan designed to divide the business among the participants, as it is here described, yes.

The Chairman. Well, it is based upon the assumption that there is an oversupply?

Dr. Wilcox. That is right.

The Chairman. And that if that supply were increased and if each of the members were to produce at capacity, it would make it impossible for any of the members to operate at a profit?

Dr. Wilcox. Yes.

The Chairman. In other words, it is the same idea which is behind all cartel organizations and behind a great many trade associations which deal in the problem of adjusting the production to consumption?

Dr. Wilcox. That is right.

The Chairman. It describes one method of obtaining an objective which from time immemorial has been sought by organizations of producers and merchants?

Dr. Wilcox. This as described is an elaborated cartel arrangement. The assumption on which all such arrangements are based, that there is such a thing as a fixed demand, or a fixed consumption, that would not grow if you reduced the price, I think is open to question, but I won't take the time of the committee to go into that.

The Chairman. That is, as you say, a matter of debate and consideration, but we have a phenomenon here manifesting certain adjustments of Government to business practice. The manner of Government adjustment varies in different countries and according to the law that may be passed for the occasion. We have seen that change in the United States when the provisions of the anti-trust law have on numerous occasions been waived for certain objectives.

They were waived for the purposes of the Webb-Pomerene Act, which we were discussing throughout this hearing. They were waived under the N. R. A. They have been waived in the shipping act and so forth. It has been the theory of Congress that certain combinations which would be in restraint of trade if they were made in the United States should be permitted in the world trade, and in some phases of domestic trade, and Government has on occasion joined in giving its approval to cartel organizations of this character. In this particular instance it would appear that this particular group were endeavoring to work out some such organization in the industries which happen to appeal to them for advice and management, is that correct?

Dr. Wilcox. That is true.

Dr. Kreps. Do you have a list?

Dr. Wilcox. I have just another word to complete the picture of this arrangement. They assigned each member a quota, a fixed percentage of the volume of business transacted within the zone. The association members agreed that each would accept and adhere to a quota. The association staffs prepared periodic reports and graphic charts showing the combined volume of deliveries in each zone and the deliveries of each member in the zone every 2 weeks, and for the current year, and comparing the percentage of sales actually made by each member with his quota.

The reports were circulated among members of the associations, presented and discussed at frequent meetings of regional associations; the regional association secretaries who were employees of Stevenson, Jordan & Harrison attended meetings, urged the members to adhere to their quotas, and urged those exceeding quotas to curtail output. Traveling auditors and engineers from Stevenson, Jordan & Harrison verified records of reports of members and brought production in excess of quota to the attention of members.

Members filed with regional associations memoranda stating that they had obtained contracts or orders from certain customers. Association secretaries disseminated this information among members with the understanding that they would not compete for this business. That ends the description as given in the indictment of the arrangement alleged to obtain in the case of the National Container Association.

The Chairman. Now, of course, it is altogether possible that those who were indicted might contend that that was an utterly erroneous interpretation of what they were trying to do.

Dr. Wilcox. That is true.

The Chairman. And that may be the case also with respect to other pending cases which you have cited?

Dr. Wilcox. Yes.

Dr. KREPS. They may contend that this did not fall within the provisions of the antitrust law, but would they tend to deny the essential nature of the cooperation which is the point at issue here?

The CHAIRMAN. Of course, we can't prejudge that at all. That would be wholly ex parte, and as a matter of fact I may say the Chair has been wondering whether matters of this kind actually should be admitted to the record in the absence of the persons who are charged. This inquiry is not exactly a reportorial institution to report cases which have been filed in courts. I just wanted to make it clear that there should be no conclusion from the presentation of these matters that any of these allegations are in the slightest degree true.

Dr. WILCOX. I am not intending to express my opinion on the point of whether or not these arrangements, if they do exist, are in violation of the antitrust laws, and I am not asserting of my own knowledge that they do exist. I am saying that if an arrangement such as that described here does exist, it might properly be defined as a quota cartel.

Dr. KREPS. The materials which you have been discussing represent true bills of indictment, do they not?

Dr. WILCOX. That is true.

Dr. KREPS. Each has been found a true bill by a grand jury.

The CHAIRMAN. I know, but indictments are not proof of guilt. This committee can't pretend to regard it as such. Of course, we have had the broadest latitude in the presentation of evidence and views and opinions here. My comment upon this matter has been to make it altogether clear that the presentation of an indictment and the reading of these charges shall not be construed in any sense as implying any judgment upon the part of the committee, and I hope on the part of the witness.

Dr. WILCOX. Quite so. Similar arrangements are alleged to have existed in an indictment brought in the District Court of the United States for the Southern District of New York on July 20, 1939, in the case of the Kraft Paper Association, also administered by the firm of Stevenson, Jordan & Harrison. I should like to offer for inclusion in the record an excerpt from a pamphlet written by Charles R. Stevenson, head of the firm of Stevenson, Jordan & Harrison, and published by that firm. The relevancy of this is that it indicates the point of view toward this plan taken by the head of the organization.

The CHAIRMAN. I don't think that we will admit that, if the witness will coincide in our pleasure.

Dr. WILCOX. I have a more recent quotation from the writings of the same gentleman which will also——

The CHAIRMAN. I don't think it is relevant here. This man is apparently under indictment and if the committee is to hear his views they should be heard from him and not by selection from any of his records.

Dr. WILCOX. I have also a list of trade associations whose affairs are administered in whole or in part by the firm of Stevenson, Jordan & Harrison.

The CHAIRMAN. I think we will pass that; it is not material at this point.

Dr. WILCOX. I don't mean to suggest that the same plans exist in the thirty other associations in the list.

Analagous arrangements apparently exist in the anthracite coal industry. I quote from the New York Times for January 14, 1940, which says that a program for allocating production in Pennsylvania's 50,000,000-tons-a-year anthracite industry has been proposed; each operating company would mine a fixed number of tons each week; the potential weekly demand would be worked out in advance and divided among producers on a tonnage basis.

And I have here several excerpts from the Black Diamond, a trade publication of the industry, dated 1939, March 11 to November 18, which I shall not take the time to read, but merely summarize by saying that they indicate that all during 1939 from week to week a common arrangement was arrived at to shut down the operation of anthracite mines to a certain number of days per week.

The CHAIRMAN. What is the document?

Dr. WILCOX. These are quotations from the Black Diamond, the trade publication of the anthracite industry. In the oil industry the State proration laws plus the interstate compact, plus the Federal Connally Hot Oil Act as renewed, of course set up a quota arrangement governing the production of petroleum.

The CHAIRMAN. That, of course, was an instance where government by law adopted the quota system of adjustment of production to demand.

Dr. WILCOX. That is right, but it is properly to be defined as a cartel. I should like to present——

The CHAIRMAN (interposing). Well, it makes it clear, let me add, that there is no moral turpitude necessarily involved in the establishment of quotas, whether those quotas are established by prearrangement of the corporations engaged in production or whether they are established by the Government. Our problem is one of determining what arrangement is best in the public interest.

Dr. WILCOX. Quite so. It may be inferred that an analogous arrangement exists among the major meat-packing concerns in the United States. I should like to have submitted as an exhibit a table which was prepared by Prof. William H. Nicholls, of Iowa State College, and presented in a paper which he read before the American Farm Economics Association in December 1939, and is to be published in February in the proceedings of that association. What Professor Nicholls has done is to study the purchases of livestock in the major livestock markets over the period 1931 to 1937 and compare the figures which he has thus obtained with figures obtained in earlier studies of the same problem by the Federal Trade Commission. These give percentages of purchases of hogs by the major packers in these markets, as percentages of the total purchases by these packers, not as percentages of the total purchases in the market. That is, it shows the distribution of their purchases among themselves. It may be commented that the figures show a remarkable uniformity of percentage of purchases over time stretching from 1906 down to 1937 in each of these markets.

Dr. WILCOX. In his paper, Professor Nicholls showed that a similar situation obtained in connection with other types of livestock.

Mr. PIKE. You infer there must be some collusion?

Dr. WILCOX. Professor Nicholls in his paper refers to that point and quotes representatives of the packers as denying that collusion exists.

They explain it in terms of customary behavior. I have no knowledge as to the basis.

Dr. KREPS. Mr. Chairman, I offer this as an exhibit.

The CHAIRMAN. The exhibit may be received.

(The table referred to was marked "Exhibit No. 2177" and is included in the appendix on p. 13575.)

Dr. WILCOX. I would suggest also that similarly uniform percentages of sharing business over time are revealed by "Exhibits Nos. 1687 and 1704" in the record of the hearings before this committee, dealing with the shares of participants in security issues of the American Telephone & Telegraph Co.[1]

Also referring to earlier hearings before this committee, it was asserted before the committee in connection with the hearings on the glass-container industry that the licenses granted to glass-container manufacturers to use glass-container machinery under the patents owned by the Hartford-Empire Co., in some cases restricted the areas in which they could sell or the quantities that they could produce.[2]

In the incandescent electric lamp industry, according to a report issued by the United States Tariff Commission, Report No. 133, second series, 1939, the Westinghouse Electric Co. pays the General Electric Co. a royalty of 1 percent on sales of lamps which do not exceed 25.4 percent of the combined lamp sales of the two concerns. It pays a royalty of 30 percent on sales made in excess of this.

Quoting the report:

> The prices, terms and conditions of sales at which the Westinghouse Company is entitled to sell lamps made under license of General Electric patents are fixed by the General Electric Company.

The five other licensed assemblers are prohibited from making and selling lamps for export. They pay a royalty of 3⅓ percent on lamp sales which do not exceed a certain percentage of General Electric sales. They are required to pay an additional royalty of 20 percent on sales made in excess of their stipulated shares.

In both of these cases, the basis of the sharing of the market apparently lies in a patent rather than in a formal organization of the participants.

As to the seventh major type of cartel arrangement mentioned by Von Beckerath, those which enforce market sharing by pooling arrangements, there are certain cases that might be included. Again, an indictment in the case of the Engineering Survey & Audit Co. returned in the District Court of the United States for the Eastern District of Louisiana——

Dr. KREPS (interposing). Do you have there the actual court case as opposed to an indictment?

Dr. WILCOX. This is the only case which I have that shows a pooling arrangement. Shall I proceed?

Dr. KREPS. Proceed to the next topic.

Dr. WILCOX. To the next category?

Dr. KREPS. Yes.

Dr. WILCOX. I quote a paragraph from a paper read before the American Economic Association, December 1939, by Mr. Corwin Edwards.

> The California Marketing Act permits the state director of agriculture with the assent of 65 per cent of the producers and 65 per cent of the handlers by volume

[1] Included in Hearings, Part 23.
[2] See Hearings, Part 2.

to limit the quantity of any agricultural commodity processed, to allot the amounts which may be purchased by distributors, to apportion the quantities which each processor may process, to establish reserve pools of the commodity, and to apportion the proceeds of the sale of such pools.

(Mr. O'Connell assumed the Chair.)

Dr. WILCOX. There are a few other cases in which penalty provisions appear to have been employed for the purpose of enforcing quota arrangements. These, of course, would operate to make the quota arrangement more effective. One of these was proposed for the American Institute of Steel Construction in 1934 in testimony before the Senate Committee on Manufactures by the president of that institute, who proposed a plan to ration the available business without being in violation of any Federal or State laws.

The reasonable ratio of each member's business to the total business would be determined on the basis of productive capacity. If any member's output exceeded this reasonable ratio, he would have to pay extra dues to the Association on the excess, in the belief that where a member profits from the research and promotion work of the institute, he should be required to pay that penalty.

Of this plan, Burns in his book on The Decline of Competition, says:

> The scheme proposed was in fact an agreement to distribute quotas, to impose fines for exceeding the quota, and presumably bonuses for failure to attain the quota.

There is no evidence that the plan was ever put into operation.

Acting Chairman O'CONNELL. Was it proposed that the Government aid in the imposition of the penalties, or that they merely exempt that situation from the antitrust laws, and that the penalties be imposed by the industry?

Dr. WILCOX. They stated it was their belief that the plan would not be in violation of any Federal or State law.

Acting Chairman O'CONNELL. What were they proposing?

Dr. WILCOX. The proposal was that of allocating output and charging extra association dues to those who exceeded the output.

Acting Chairman O'CONNELL. I mean why was it necessary to present a plan before a congressional committee if there was not legislation in contemplation?

Dr. WILCOX. This was the committee which held hearings on the establishment of a national economic council. It was a discussion of economic planning.

Penalty provisions also appeared in the case of 15 N. R. A. codes in the guise of liquidated damages provisions. It was agreed that certain amounts of money were to be paid by those who violated the codes as damages for having injured the other participants, but if those liquidated damages provisions are read, it becomes apparent that they amount in reality to a penalty in each of these cases.

I will give only one example, that appears in the Iron and Steel Code, article X, section 2, in which it says:

> Recognizing that the violation by any member of the code of any provision will disrupt the normal course of fair competition in the industry and cause serious damages to other members, and that it will be impossible fairly to assess the amount of such damage, it is hereby agreed by and among all members of the code that each member of the code which shall violate any such provision shall pay to the treasurer as and for liquidated damages, the sum of ten dollars per ton of any such products sold by such member in violation of such provision.

Mr. PIKE. That would be prohibitive, of course?

Dr. WILCOX. In the case of steel, yes; and that is true, I think, of the 14 other codes in which this occurs.

I have only two other cases which come since the N. R. A., and both of these are already in evidence in the hearings of the committee. The one is the case of the California Lumbermen's Council, which appears on pages 2343 to 2344 of the committee's hearings, and involves a penalty for the enforcement of division of territory. The other is the case of the California rice industry which appears on pages 2340 to 2342 of the hearings, and involves a pecuniary penalty for production in excess of an assigned quota among rice millers in the State of California.

Acting Chairman O'CONNELL. In connection with which of our hearings did that appear? Was that in connection with the Federal Trade Commission?

Dr. WILCOX. That's right; Part 5-A, "Federal Trade Commission Report On Monopolistic Practices In Industries."

I have one final point which relates to a final step in making a cartel arrangement completely effective. The possible weakness of a quota cartel set-up is this: It restricts production to a point where it establishes prices that will give profits to every firm in the industry. It gives a quota to each firm. Every firm gets business and makes money. The industry becomes attractive to outsiders. New units are established; they undercut established prices and restore competition, or they must be taken into the scheme and given a quota. Shares of the earlier firms in the limited volume of sales are thereby reduced. To complete the system, then, and make it continue in effect, it is necessary to restrict entry into the field. This, of course, involves the abandonment of freedom of enterprise. It also requires cooperation of the Government. Unless the Government participates, it is impossible effectively to restrict entry.

Mr. PIKE. Even sometimes if the Government does participate as in the N. R. A. when people entered the pants-pressing business?

Dr. WILCOX. That is true.

Fifty-four of the N. R. A. codes provided for limitations on capacity; that is, limitations on the opening of new plants, the construction of new capacities, the moving of equipment from one location to another or the conversion of old equipment to new uses, or provided for the consideration of such limitation.

One code prohibited the manufacture of specified products by members of the industry who had not been producers of such products for 2 years prior to the effective date of the code; nobody who had not been producing a thing before was allowed to enter into its production. That was the candle-manufacturing code.

One code contained a prohibition of expansion of capacity. That was the iron and steel code, in which it was asserted that it is the consensus of opinion in the industry that such capacity should not be increased.

Mr. PIKE. On that iron and steel thing, I didn't understand that $10 penalty, whether it was a matter of keeping up quotas or a matter of breaking prices.

Dr. WILCOX. They did not have a quota system; it was a matter of controlling the price.

Let me go back to this capacity provision, article V, section 2, of the Iron and Steel Code:

It is the consensus of opinion in the industry that, until such time as the demand for its products cannot adequately be met by the fullest possible use of existing capacities for producing pig iron and steel ingots, such capacities should not be increased. Accordingly, unless and until the code shall have been amended as hereinafter provided, so as to permit it, none of the members of the code shall initiate the construction of any new blast furnace or open hearth or Bessemer steel capacity.

In 24 codes, authorization of some Government agency was required for the installation of new capacity. In 26 codes provision was made for the members of the industry to appeal to the N. R. A. for the imposition of a plan to limit new capacity.

Acting Chairman O'CONNELL. Those provisions under N. R. A. were upon the then members of the industry. Could not an outsider have come in and installed some additional capacity in steel?

Dr. WILCOX. In steel it was only upon members of the industry.

Acting Chairman O'CONNELL. What about the others? My general impression was that they could not in those other cases have prevented, by virtue of the code itself, new enterprise.

Dr. WILCOX. I am not certain whether they could have done so or not effectively. I believe in many of these cases it was their clear intention to do so.

Acting Chairman O'CONNELL. Oh, yes; I understand that, but to be really effective it seems to me we get to the additional sanction which you refer to, that is, Government in the picture to the extent of requiring a certificate of convenience for almost anyone to go into any industry.

Dr. WILCOX. That is right. The Cement Code Authority was authorized by its code to formulate a proposal to close down and amortize less economical plants, that is, not only keep out new plants but buy up and close plants in existence.

Mr. PIKE. A central authority to do that?

Dr. WILCOX. It was authorized to formulate a proposal. It was never done.

Acting Chairman O'CONNELL. I take it in order to bring such a program to fruition the price structure would have to be such as to amortize the units which were obsolete and put them out of existence.

Dr. WILCOX. Quite so, and it would also be necessary to prevent new ones from coming in. I mean, those two things would have to work together.

Twenty-one manufacturers of paper-board presented a plan to buy up and close down marginal plants. That was never adopted, but that gives an indication of the direction in which the thought of these industries was running.

These plans are designed to exclude potential competitors and protect existing firms, to prevent the expansion of one firm at the expense of another, the relocation of business, the redistribution of business on the basis of changing efficiency; in effect, they would operate to freeze the existing competitive situation, which is the ultimate objective of cartelization.

The final comment that I should like to make is that about as complete a cartel picture as one can find anywhere is to be obtained by a reading of the N. R. A. Code for the iron and steel industry, which outlawed 12 practices as unfair and provided that any other practices

which the board of directors by a three-quarters vote declared to be unfair should constitute a violation of the code, which in effect gave them the power of legislation; regulated terms of sale; contained detailed regulations of the pricing system; required the filing of base prices with a waiting period; gave the code authority power to reject a filed price as unfair, established uniform deductions and required uniform extras; required sale on the basis of delivered prices calculated from common basing points according to a specified formula, and that sale be made only through distributors selected according to standards established by the code authority; maintained resale prices; provided for the later establishment of a quota system; prohibited the introduction of new productive capacity; and was enforced by a system of reports and audits, by provisions for liquidated damages which penalized violation, and by a Federal statute which carried the penalty of fine and imprisonment.

That I submit is about as strong a cartel set-up as one could ask to find.

Mr. PIKE. Was it ever approved by the authority?

Dr. WILCOX. That was approved by the N. R. A. It was later amended in many of these respects, but it is the original form in which the code of that industry was approved.

Acting Chairman O'CONNELL. And that code was prepared in the first instance by the industry?

Dr. WILCOX. By the Iron and Steel Institute.

Mr. PIKE. One question has been running through my mind. Do you find any of these cartels that are able to stay put over a period of years with just the original authority without ever having to reach out for more and more and more control and more sanctions, either by Government or somebody? It seems that they keep swelling up and then breaking down, of course, eventually.

Dr. WILCOX. I should say in an industry where a strongly established concern or a number of such concerns had the situation well in hand, that is, where they so dominated the market that others perforce followed their lead, it wouldn't be necessary to set up an over-all arrangement like this. In other fields the mere existence of such an arrangement suggests that that control is not completely established and that there is the possibility that competition will spring up, so these arrangements are constantly modified in one way or another, constantly tending to break down and constantly being fortified by the introduction of new sanctions.

Dr. KREPS. I would like to ask one final question, Dr. Wilcox. These arrangements are designed to stabilize conditions in the industry, are they not?

Dr. WILCOX. That is right.

Dr. KREPS. Do they have that effect in your judgment?

Dr. WILCOX. Well, in the long run I should say no; the objective which they undertake to attain is probably not attained; that is, the programs tend to be self-defeating. If they operate to raise prices and if people can't buy so much of the output at the higher price, the total income of the industry is reduced and the people are not better off as a result of the restriction of output.

Dr. KREPS. Do they have the effect of stabilizing prices and production over a period of years?

Dr. WILCOX. They may have that effect over a limited period of time; yes.

Dr. KREPS. You have been familiar, have you not, with the testimony that was introduced here on stabilization in the copper industry?

Dr. WILCOX. I have not followed that closely.

Dr. KREPS. On this chart on the easel you will note the peaks reached in price in 1929 and 1937 and the deep troughs that followed. Is such price behavior more or less characteristic of what we would call cartelized industries?

Dr. WILCOX. The question is whether striking price fluctuation is characteristic in cartelized industries?

Dr. KREPS. In those cases in which cartels break down. Would you say, for example, that part of the effect of the fictitious price situation in copper in '29 was reflected in the extreme depths of the depression of '32?

Dr. WILCOX. I should say the tendency was that when the cartel became effective the price would be higher, that while it was effective it would be more stable than it would have been without the arrangement, that when it broke down it would be likely to fall farther.

Dr. KREPS. Undoubtedly you are familiar with this authoritative analysis of the great depression by Dr. Lionel Robbins of the University of London.

Dr. WILCOX. Yes.

Dr. KREPS. In that, page 182, I quote, "There is strong reason for attributing much of the severity of the depression to the inflexibility of cartel prices and to the insecurity caused by the existence of giant buying agencies in the various commodity markets." On the whole, would you agree to that statement? Is it your judgment that most of the trained economists of the world would agree with that statement?

Dr. WILCOX. Yes; I would agree. I believe that would be the general belief.

Dr. KREPS. In other words, because in '29 there were series of such stabilization arrangements in copper, in wheat, coffee, and rubber, just to mention a few, and because these broke simultaneously throughout 1930, thereby cartels contributed in the judgment of most of the trained economic observers of the world to the depths of the depression in 1932.

Dr. WILCOX. I think that is the case.

Mr. PIKE. Did you include wheat?

Dr. KREPS. Yes.

Acting Chairman O'CONNELL. Dr. Wilcox, I think we have no further questions and I am sure that I speak on the part of all the committee when I say that what you have given us this afternoon constitutes a real contribution not only to the study of cartels but to the problem of the committee, which, of course, is broader than the cartel subject alone. On behalf of the committee I want to thank you very much.

Dr. KREPS. I should like to finish the presentation of the cartel hearings.[1] Dr. Callmann, now residing at 23 Hammond Street, Cambridge, Mass., is an internationally recognized authority on cartel problems.

[1] Due to the death of Senator Borah, the senior senatorial member of the Temporary National Economic Committee, its cartel hearings were ended before it was possible to place the last witness, Dr. Rudolf Callmann, on the stand.

For the 10-year period just prior to 1936, when he was attracted to the United States, he was Rechtsanwalt am Landgericht in Cologne, Germany, engaged in legal consulting practice for a variety of German cartels. Prior to that time, for a period of 4 years, he was managing director of the firm, Rollmann & Mayer, a shoe manufacturing concern at Cologne. In addition, he is the author of a number of authoritative writings on cartel and related problems, most important of which are his volumes on unfair competition, entitled "Der Unlautere Wettbewerb (J. Bensheimer, Mannheim-Berlin-Leipzig, 1932) 670 pages, and his treatise on German cartel law entitled, "Das Deutsche Kartellrecht," (Philo Verlag und Buchhandlung G.m.b.H, Berlin, 1934) 721 pages.

I should like to submit his statement, prepared and sworn to by him, for the record.

Acting Chairman O'Connell. Without objection it will be included in the record of these hearings.

If there is nothing further to come before the committee, we will stand in recess until tomorrow morning at 10:30.

(Whereupon, at 5:50 p. m., a recess was taken until Saturday morning, January 20, 1940, at 10:30 a. m.)

STATEMENT OF RUDOLF CALLMANN, INTERNATIONAL AUTHORITY ON CARTELS, CAMBRIDGE, MASS.

I, Rudolf Callmann, do hereby certify that the attached pages numbered 2 to 47, inclusive, are a true and correct copy of testimony on the cartel problem which I prepared for presentation before the Temporary National Economic Committee.

Rudolf Callmann.

Subscribed and sworn to before me, Denis E. Connell, a notary public in and for the city of Washington, District of Columbia, this 23d day of January 1940.

[seal] Denis E. Connell.

WHAT IS A CARTEL?

Cartel law even in Germany is a relatively young branch of the law. It was not until 1910 that the groundwork for legal consideration of cartel problems was laid in the book of Professor Flechtheim, Die rechtliche Organisation der Kartelle. During the last 30 years legal research upon cartel problems has made rapid progress.

A cartel agreement adjusts the business activities of its members—of merchants of a particular field of industry or trade—to a given market. In particular it adjusts productive capacity in a given industry to the demands of the market, trying to correct the usual tendency of output capacity to outrun these demands. Such an adjustment among competitors limits or eliminates competitive freedom. A cartel is always a horizontal association; consequently, proceeding according to good American usage by looking at the cases as they have been decided in the German courts, I define a cartel as—

> *a contractual association* of legally *independent* entrepreneurs in the *same* or similar field of business formed with the intent, effect or potentiality of *influencing the market* by means of *regulation of competition*.[1]

[1] See Callmann Das Deutsche Kartellrecht, pp. 71-90, 296-333.

This is, in my opinion, the definition which not only covers all essential features of a cartel but also underlies the decisions of the German Supreme Court and Cartel Court. Regulation of competition by businessmen is the typical function of a cartel.

It should be noted, however, that on one occasion there was a difference of opinion in this regard between the German Supreme Court and the Cartel Court. The Supreme Court held an association to be a cartel only if the members intended to influence the market, while the Cartel Court held decisive the objective capacity or potentiality of the cartel to influence the market. The definition I just gave follows the latter theory.

I have listened with great interest to these hearings on cartels. At the request of your counsel I was present at every session. I noted carefully the presentation of facts concerning the various cooperative organizations in the copper industry—namely, the Copper Export Association, Copper Exporters, Inc., and the present international copper agreement. All of these are in my judgment cartels in the European sense.

They represent types of cartels well known in national and international industry. The Copper Export Association was simply a joint selling agency. It would be called a syndikat in the German cartel law. The same is true of Copper Exporters, Inc., although the situation is not quite so clear as in the Copper Export Association, particularly insofar as its purpose, instead of being that of mitigating or eliminating competition among its members, seemed to be that of common defense against speculators, who, while neither producing nor consuming copper, were believed to be responsible for artificial and harmful fluctuations in copper prices, particularly in the London metal exchange. But the evidence showing that the major effect was the mitigation of competition among each other was so convincing that I feel no hesitancy in calling Copper Exporters, Inc., a cartel. And may I add that it was thus regarded by all of the writers on cartel problems in Europe. Dr. Robert Liefmann, the famous German expert, in his book entitled "Cartels, Combines & Trusts" (London 1928) goes so far as to say (p. 60) that Copper Exporters, Inc., was "a clear case of *export cartels* deliberately fostered by the Government of the U. S. A. to the detriment of the European consumer." [Italics in original.]

The American public may be surprised, if not annoyed, by such a statement. But in European opinion and experience cartels that engage in international trade are generally assumed to be fostered by their governments because cartels are frequently merely another means of international trade policy.

Moreover, Copper Exporters, Inc., is an association authorized by the Government under the Webb-Pomerene Act, which according to the evidence presented in these hearings, was strongly urged upon Congress and the Wilson administration by influential members of the copper industry.

I hasten to add that in European cartel literature and discussions all associations formed under the Webb-Pomerene Act are regarded as export cartels. The list, even at the present time, is an impressive one, embracing a wide range of enterprise:

LIST OF EXPORT ASSOCIATIONS FILING PAPERS WITH THE FEDERAL TRADE COMMISSION UNDER THE EXPORT TRADE ACT (WEBB-POMERENE LAW) DURING 1939, TO DATE OF JANARY 18, 1940

American Box Shook Export Assn., Barr Bldg., Washington, D. C.
American Hardwood Exporters, Inc., Carondelet Bldg., New Orleans, La.
American Paper Exports, Inc., 75 West St., New York.
American Provisions Export Co., 80 E. Jackson Blvd., Chicago, Ill.
American Soda Pulp Export Assn., 230 Park Ave., New York.
American Spring Manufacturers Export Assn., 30 Church St., New York.
American Tire Manufacturers Export Assn., 30 Church St., New York.
California Alkali Export Assn., 530 West 6th St., Los Angeles, Calif.
California Dried Fruit Export Assn., 1 Drumm St., San Francisco, Calif.
California Prune Export Assn., 1 Drumm St., San Francisco.
California Rice Exporters, 351 California St., San Francisco.
Carbon Black Export, Inc., 500 Fifth Ave., New York.
Cement Export Co., Inc., 150 Broadway, New York.
Copper Exporters, Inc., 50 Broadway, New York.
Douglas Fir Export Co., Henry Bldg., Seattle, Wash.
Durex Abrasives Corp., 63 Wall St., New York.
Electrical Apparatus Export Assn., 70 Pine St., New York.
Electrical Export Corp., 100 W. 10th St., Wilmington, Del.
Export Screw Assn. of the U. S., 23 Acorn St., Providence, R. I.
Florida Hard Rock Phosphate Export Assn., Savannah Bank & Trust Bldg., Savannah, Ga.
General Milk Co., Inc., 19 Rector St., New York.
Goodyear Tire & Rubber Export Co., 1144 E. Market St., Akron, Ohio.
International Wood Naval Stores Export Corp., Gulfport, Miss.
Metal Lath Export Assn., 47 West 34th St., New York.
Northwest Dried Fruit Export Assn., Title & Trust Bldg., Portland, Oregon.
Pacific Forest Industries, Tacoma Bldg., Tacoma, Wash.
Pacific Fresh Fruit Export Assn., 333 Pine St., San Francisco, Cal.
Pencil Industry Export Assn., 703 E. 13th St., New York.
Phosphate Export Assn., 393 Seventh Ave., New York.
Pipe Fittings & Valve Export Assn., 1421 Chestnut St., Philadelphia, Pa.
Plate Glass Export Corp., Grant Bldg., Pittsburgh, Pa.
Potash Export Assn., Inc., 21 E. 40th St., New York.
Redwood Export Co., 405 Montgomery St., San Francisco.
Rice Export Assn., Queen & Crescent Bldg., New Orleans, La.
Rubber Export Assn., 19 Goodyear Ave., Akron, Ohio.
Shook Exporters Assn., 2718 Pershing Drive, Memphis, Tenn.
Signal Export Assn., 420 Lexington Ave., New York.
Steel Export Assn. of America, 75 West St., New York.
Sugar Export Corp., 120 Wall St., New York.
Sulphur Export Corp., 420 Lexington Ave., New York.
Textile Export Assn. of the U. S., 40 Worth St., New York.
U. S. Alkali Export Assn., Inc., 11 Broadway, New York.
Walnut Export Sales Co., Inc., 12th St., & Kaw River, Kansas City, Kans.
Walworth International Co., 60 E. 42nd St., New York.

The evidence on the copper industry, however, seemed to me not nearly so impressive as that given by Dr. Clair Wilcox. It confirmed an impression that I had long held, that cartels have reached an advanced stage of development in the United States. The evidence vividly recalled to my memory the statement of the President on the topic of cartels in his message of April 1938, urging the formation of the Temporary National Economic Committee. His contention that "private enterprise is ceasing to be free enterprise and is becoming a cluster of private collectivisms; masking itself as a system of free enterprise after the American model, it is in fact becoming a concealed cartel system after the European model" seems to me to have been proved to the hilt.

It has been said, and it was said often at these hearings, that cartels are "Kinder der Not." Necessity may determine the precise time of

cartel formation but they can meet that necessity only if at least four other sets of favorable circumstances are present, having reference respectively to the nature of the market, the nature of the product, the nature of the industry and the character of the members of the proposed cartel. The market must show some degree of inelasticity of demand. The product ordinarily must be standardized and easily definable with respect to its quality. The industry most favorably acceptable to the formation of cartels is that with heavy fixed or overhead costs or large transport costs, one least capable of being rapidly adjusted to changing market conditions. The members must have a certain degree of propensity for collective agreement and action. These conditions exist especially in the basic (mineral) and heavy industries. Where the situation is different, for instance where a large number of small or medium sized establishments produce specialized commodities, cartels are only selling-terms or cost-accounting associations (e. g., clothing, foodstuff and other finishing industries).

Some writers insist on making a sharp distinction between the defense and aggression motive of cartels. But this is of relatively little significance so far as my definition is concerned since for the problem of governmental supervision or legal enforcement it is unimportant which of two illegal purposes cooperation was striving to achieve when it was created, since also here the old French saying is true: *l'appétit vient en mangeant*. The distinction in substance between a very close, strong cartel, e. g., a syndicate, and a merger corporation or community of interests or fusion is sometimes negligible.

Cartels, in short, are formed not only in periods of necessity for self-preservation—that is, for defense—but also at other times as a method of increasing economic power—that is, for purposes of aggressive attack. For ordinarily a cartel has a rather dramatic life. Frequently the necessity to influence the market causes a cartel to develop from modest beginnings through fiercest struggle into an organization whose goal is a quite imperialistic domination of the entire industry.

The aggressive portions of the policies of such cartels are directed within the cartel against breach of the cartel agreement on the part of members. Hereby I speak only of the cartel itself, not of the struggles among the members between small and large enterprises, high-cost and low-cost producers and so on.

Outside the cartel its methods are directed in the domestic markets against the competition of outsiders. Cartels have been known to engage in sharp price-cutting, selling below cost and "fighting" prices. They may endeavor to cut off important sources of supply and credit, sometimes through exclusive dealing agreements and sometimes by means of boycotts announced to all concerned. I take up these matters in greater detail when I discuss section 9 of the Kartell Act of 1923.

In the third place, aggressive policies may be directed against foreign markets. In the relationship between cartels and foreign markets we have to distinguish two motives which drive cartels into such a policy. It is relatively infrequent that cartels extend their market control to a contested foreign market merely in order to foster an imperialistic policy but it is very often the preparation for a coming international cartel. The stronger the situation of a national cartel is at the time of

founding an international cartel, the greater are the prospects to get a favorable quota.

But there is still another factor causing aggressive activity of cartel members in foreign markets—that is, the pressure of productive capacity from the home market. In such a case, export price policy is used to bolster domestic cartel policy. Selling at lower prices abroad is advantageous to cartel members since the increased output reduces the fixed costs per unit of output. How far cartel members may go in lowering their prices below cost depends upon the margin of profit obtainable on the home market and the relation of export quantities to the total volume of output. The export activity of members is often favored by specific cartel measures such as export premiums and the fact that export quantities are not taken into account in levying contributions to the cartel treasury. I understand that a study undertaken by the Department of Commerce for the Temporary National Economic Committee shows the above-mentioned practices to exist in a number of industries. In each of these, if German and European experience is any guide, there probably exist cartel-like organizations.

On one occasion in these hearings the question arose what a cartel has in common with restraint of trade. The answer is: everything. A cartel is a combination in restraint of trade. In one of the first American cartel cases Chief Justice Taft—then judge of the Circuit Court of Appeals for the Sixth Circuit—declared contracts made with a view to check ruinous competition illegal as contracts in restraint of trade, *U. S.* v. *Addyston Pipe & Steel Co.* (85 Fed. 271, 1898). In that case six corporations had made an agreement to assign territories, fix prices, and so on. I wish to emphasize, however, that the term "restraint of trade" is no more definite or clear than the concept "monopoly" and "cartel."

It would lead us away from the subject matter of our discussion if I should explain the substitute which I suggest for the present standards of illegality in the American anti-trust laws. I have transmitted a memorandum to your committee on this problem, entitled "A new appproach to competition and monopoly." Suffice it here to say that the major shortcomings of the present anti-trust laws and the law on unfair competition, in my judgment are as follows:

1. The language of the antitrust laws is not clear and concise enough.
2. The courts are called upon in antitrust law cases when it is too late. On the other hand, they are unable to supervise economic developments.
3. There must be an administrative agency for which a proper method of operation has not yet been developed.
4. The shortcomings in the law of unfair competition, recognized by the majority of American critics, derive from the fact that the legal nature of the competitive relationship is still unexplored.

Therefore I tried to explore the competitive relationship and reach the result that its position within the system of the law of torts is different from that advocated in the doctrine of justification. I hold that the ambiguous term "monopoly" should not be used in legal language and suggest that it be supplanted by the term "anticompetitive conduct."

Since competition is (1) struggle (2) according to game-like rules (3) by means of constructive effort (this is my equivalent for the German word "leistungswettbewerb" which I introduced into the language

of the German law, taking it from the phraseology of German economists) (4) subject to the conditions of the market, any act which violates one of these four elements constitutes anticompetitive conduct and is illegal as a violation of the spirit of the antitrust laws if it contravenes or disavows the fundamentals of the competitive order (elements 1 and 4) and is illegal as unfair competition if it violates the rules of competition (elements 2 and 3).

Any agreement by which competitors make peace, that is, supersede peace to struggle, and any act by which a competitor comes into the position of influencing the market is, therefore, a violation of the antitrust laws. The former is always a tortious act which belongs to the jurisdiction of the courts, the latter is an economic condition that should be supervised by an administrative agency. Where, however, peace is inevitable, it may be allowed by this agency; where the influence of market is the voluntary or involuntary consequence of business activities, it is to be regulated or supervised by this agency.

The legal situation which is brought about by this theory is shown (1) in cases of unfair competition, (2) in the example of the patent cases in the glass container industry in connection with the recommendations of the Department of Justice as stated in the preliminary report of the T. N. E. C. of July 17, 1939, p. 15.[1]

THE RULE OF REASON IN GERMANY

Though the development of the combination movement differs considerably among modern industrial nations, there is at bottom a curious conformity in their experience in that sooner or later all reach that stage of legal consideration which is epitomized in the American antitrust laws with the term "rule of reason." Before dealing with German legal developments, let me show the devious manner in which the major countries have reached the rule of reason.[2] Three different courses may be noted:

(1) Countries which at the start of the combination movement in the latter half of the nineteenth century had a statute which forbade commercial combinations expressis verbis and then developed the rule of reason by way of interpretation in order to mitigate the apparently rigid and unreasonable prohibition of the statute. For example, the United States where the Sherman Act of 1890 was modified by the *Standard Oil* (221 U. S. 1–1911) and *Tobacco cases* (221 U. S. 106–1911).

(2) Countries where the rule of reason was adopted in order to dilute a statute which prohibited combinations generally but was interpreted to apply also to commercial combinations. This situation is similar to that in the United States—see (1)—except that the statutes were not directed against monopolies expressis verbis but were passed in times when no one anticipated the modern monopolies. For example, France where the Chapeliers Act of 1791 and the Penal Code, article 419, 420 of 1810 prohibited coalitions both of employers and workers but were modified by the courts through the development

[1] The fundamental ideas of this memorandum have been developed in a series of articles to be published in the February and April, issues of the Georgetown Law Journal 1940, under the titles: "What is Unfair Competition?" and "Patent License Agreements between Competitors and the Monopoly Issue." The reference to these articles is made because the detailed quotations of legal and economic authorities are not given in my memorandum.

[2] Nevertheless, the difficulties in unifying the cartel law of different countries are considerable. See in this respect my opinion given in the Report of the 38th Conference of the International Law Association, 1934.

of the rule of reason about 1880; in 1926 a statute recognized commercial combinations as legal; and in 1935 compulsory cartels were introduced. In Belgium the legal development was almost the same as in France. Austria at the beginning had the Coalition Act of 1870 declaring unenforceable any coalition of employers and workers. The common opinion of the necessity of commercial combinations was expressed not only in several legislative proposals but also in a tacit approval of the cartel movement by the authorities and the courts.

(3) Countries where, in the beginning, the rule of reason as evoked by the courts was the only basis for legal consideration. For example, Germany which we will presently discuss more specifically. In England, where, under the old common law rule of restraint of trade, a commercial combination was legal only if the restraint was not unreasonable or against public policy, the Trade Union Acts of 1871, 1876, 1906, 1913, 1927 apply to both commercial and labor combinations but pertain mainly to the problem of enforceability. Just as in America, a law intended to protect individual freedom was abortively transformed into a law to protect an economic principle.

The United States is the only major country where the unfortunate domination of the rule of reason has never been sanctioned by a statute modifying the original provisions of the antitrust laws. Curiously enough, some of the British Dominions followed the United States rather than England, for example, the Union of South Africa, Canada, Australia, and New Zealand.

To speak, as I have just spoken above, of the unfortunate domination of the rule of reason sounds at first hearing per se unreasonable. But if we understand the technical fact that under this term the courts have to decide whether a cartel or any monopolistic association is economically desirable or undesirable, and that courts are often able to answer this question only after the association under scrutiny has become a considerable economic power, then the grounds for being unable to rely upon it become clear. As I have developed in full in my memorandum, I prefer the device of an administrative agency exercising continued supervision as the body to decide in how far monopolistic associations or concentrations of power in a given industry are inevitable, desirable and controllable.

THE DEVELOPMENT IN GERMANY

The cartel movement in Germany did not begin to be of major significance until after the year 1873. Inasmuch as there was no statute specifically directed against cartel agreements, judges considering the first and fundamental decisions of the German courts were led nearly exclusively by economic considerations. In the first case [1] where an association of Bavarian Kiln owners, formed for the purpose of "checking the decline of their industry by regulation of production and prices," brought a suit against a member who had violated the agreement by producing and selling in excess of the quota, the Bavarian Supreme Court held that it would be "incumbent upon prudent business men" "belonging to a branch of industry which is suffering from a depression to get together and enter into agreements

[1] Bavarian Supreme Court, April 7, 1888, in Decisions of this Court, Vol. 12, p. 67. (Kiln owners association).

regulating the ways and means of operating their industry with a view to promoting recovery." Although, as is the case in the economic literature of all countries, the views of the economists in Germany are and always have been widely divided, we find a surprising boldness in these economic statements of the jurists. They are not reluctant to point to economic theories like these:

overproduction is disastrous for an industry, especially when market price drops below production cost so that *every effort* to eliminate overproduction is directed at an economic evil and is, therefore, to be commended. Since the individual producers are powerless to restore the proper balance between supply and demand by limiting their own output, the *only way* to bring about such result is for them to combine and agree on such limitation.

In a subsequent suit brought by the same cartel against another member, the same court [1] enunciated economic views greatly emphasized 50 years later by the business men, whether in Government service or out of it, who conceived, initiated and administered the N. R. A. in the United States. It argued:

Experience teaches that the more the price of goods advances, the more insistent will be the demands of labor for higher wages, and the more easily will manufacturers be able to meet these demands; on the other hand, a depressed trade yielding little or no profit will immediately react adversely on the wage level and must eventually lead to the shutting down of plants or the curtailment of their operations, thus causing serious injury to the workers employed therein.

Then, we come to the first cases in which the German Supreme Court held cartel agreements legal. It approved both the system of resale price fixing for trade marked articles and the boycott ("Sperre") against outsiders.[2] The case most important and decisive for the period from 1897 to 1923 was that of the Saxon woodpulp manufacturers. This cartel was formed by a "substantial" number of the manufacturers for the purpose of "stopping ruinous competition and of securing a reasonable price for their products." The court rested its decision upon the following reasoning concerning its economic views:

When the prices of the products of an industry fall to an unreasonably low level and the profitable operation of the industry is thereby endangered or made impossible, the resulting crisis is detrimental not only to the individuals affected, but also to the national economy as a whole, and it is, therefore, to the interest of society that prices should not be constant at an unreasonably low level.

The legal arguments of the courts were derived from two points of view; the one was that the German law was not based upon the principle of free competition in the sense that the law will endeavor to preserve competition; the other that the cartel agreement was not against *bonos mores*, and therefore void.

Fatal to the whole future development of the law were the ideas of the *Saxon Woodpulp case*. I could argue this proposition at length. But, that which Mr. Justice Brandeis has shown in one of his excellent dissenting opinions [3] is also true here. Most decisive for the results reached in any case are the economic and social views of the judges. The judges of that epoch were influenced by particular and in my judgment one-sided economic considerations, in turn derived from doctrines of the historical school of economics

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[1] Dec. 27, 1888, Decisions of the Bavarian Supreme Court, Vol. 12, p. 22.

[2] Decisions of the German Supreme Court of June 25, 1890 (28 R. G. Z. 244) and of Februar- 4, 1897 (38 R. G. Z. 155.)

[3] In *Duplex Printing Press Co.* v. *Deering* 254 U. S. 443 (1921); see also Chief Justice Taft in the *District of Columbia Minimum Wage case* 261 U. S. 525 (not to speak of splits within the United States Supreme Court in recent years).

which was opposed on principle to free competition and to the method of economic analysis associated with classical economics.

For about 30 years this attitude of the judiciary fostered the flourishing of the industrial combination movement, so that, when eventually public opinion cried for a special statute against the abuse of power by cartels, it was too late to forbid them altogether.

There were, of course, a great many other reasons favorable to such a development: For instance, the fact that the ordinary courts were concerned with cartels at a comparatively late date because of the popularity of arbitration courts in this field of law. Considerable significance must also be attached to the peculiar developments in the political economy of the period, for cartels were credited by the capitalists with paving the way for a slow but permanent remolding of the economic order on a more stable basis. By Socialists they were welcomed in that they were thought to lead to some sort of "organized capitalism," comprising a system of extensive monopolies controlled by the State, which would finally be converted into a Socialist economy. Moreover, business opinion then in Germany, as at present in the United States regarded contentions that cartels were in many respects but forms of monopoly not only as mistaken but radical and slanderous. Finally the ideal of individual freedom has never been so highly estimated in Germany as in England and the United States.[1]

GOVERNMENTAL SUPERVISION IN GERMANY

Not until 1923 was there even a shadow of opposition to cartels in Germany. Then the "Statute against abuse of economic power" of November 2 came into existence but at a time when the power of economic circumstances, especially of the emergencies caused by currency inflation, was much greater than that of the cartels.

The curious struggle between the English common law and equity courts or between the American administrative agencies and the courts has its German counterpart in the opposition of the ordinary courts and especially the Supreme Court to the cartel court which was established through the Cartel Act of 1923. This is a genuine struggle between the judiciary and an administrative agency, for the cartel court, though it is called a court, is in fact a judicially organized administrative agency, the peculiarity of which was that it was at once the tribunal of first and last resort. In substance it was a Federal Trade Commission except that its decisions were not subject to judicial review.

The antagonism between judiciary and administrative agency ordinarily becomes more apparent when questions of the ordinary law, of the common law, are in issue. This was the case not only when American courts declared that it was for them to determine what methods of competition were to be deemed unfair (see *Federal Trade Commission* v. *Gratz*, 253 U. S. 421), but also in the German cartel law where all cases which came before the cartel court were cases apparently presenting problems of the ordinary law transferred from the sphere of individual interests into the struggle between individuals

[1] About a year ago the New York Times Magazine, November 27, 1938, p. 27, wrote: "The Germans are inherently a docile and obedient people. Always have they been under tutelage of King or Kaiser, Prince or Duke. In large part that tutelage has been paternal and for good (incidental to that of the ruler), but there has always been the mailed fist to make it effective. The consequence is that Germans have come to prefer being led." German authors have not infrequently pointed to this national characteristic as an explanation of the German cartel movement.

and organizations. My treatise on the German cartel law, page 705, contains a table of all decisions of the cartel court from 1923 to 1933 indicating the legal problems involved. Apart from a few questions of procedure, all other problems are those referring to sections 1, 8, and 9.

Section 1 pertains to the cartel concept. I already mentioned the split in the opinions of the Supreme Court and the cartel court.

Section 8 deals with the right of a member of the cartel to withdraw if serious reasons justify the restitution of his individual freedom. This provision was only the application of the general principle to the cartel law that in contractual relationships of uncertain or long standing any participant must be given the chance to terminate the contract when the original circumstances have fundamentally changed or on other grounds a withdrawal was to be allowed. Serious reasons which justified a withdrawal were held to exist when, for instance, the existence of the member was jeopardized or when the whole basis of the cartel agreement was shaken, either by loss of faith in the cartel management or by emergence of strong outsiders or by change in the structure of the cartel, for example, when the proportional relation between pure and mixed concerns, between large and small members, had changed. Withdrawal was an ultima ratio which was granted when all other means had failed. Three interests were to be weighed against each other: The interest of the withdrawing member, the interest of the cartel, and the interest of general welfare and general economy. The latter point of view played a merely ornamental role, however, in the decisions of the cartel court.

In cases of withdrawal for serious reasons the jurisdiction of the cartel court is exclusive if the association is a cartel. A confusion could arise if the ordinary court held the association not a cartel. Cases of this kind were, however, few.

Section 9 pertains to the means through which a cartel tried to force outsiders into the cartel or to destroy their business. Such means were boycott with respect to suppliers or customers either by blacklists or loyalty discounts or exclusive dealing agreements or refusal of rebates or other discrimination. (Many of these means are similar to those forbidden by sec. 2, Clayton Act, especially as modified by the Robinson-Patman Act.) Section 9 made those methods subject to the approval of the cartel court.

While section 8 introduced a general principle into the cartel law, section 9 was an exception to the general law with respect to organizations, for under the general law even under the law of unfair competition, a boycott is not illegal if its aim is justified, if the way in which it is carried out is legal, and if the damage caused by it is not out of proportion with the desired aim and does not destroy the competitor.

The permission of the cartel court could be withheld for one of two reasons: Either because of a threat to the general welfare or the general economy or because of an "unreasonable" restraint of the individual outsider's economic freedom. The latter reason played, just as in section 8, the dominant role. Coercive methods have been outlawed if they represented an arbitrary violence against the outsider abusing the superior power of the organization while the permission was granted if the cartel intended to render the outsider a member under the condition that such a membership was deemed reasonable from the standpoint of all interested parties. A striking example of

the delegation of power to cartel organizations is a later amendment to section 9 (of 1933) which provides that the boycott against unreliable persons and price-cutters should be allowed.

The interpretation of both section 8 and section 9 is of general interest to the American lawyer, for the fact should not be overlooked that to all appearances the parties when they face the courts are only adjusting their individual controversies. But in reality we are here confronted with a new kind of law, a law of economic groups and districts, a law which confuses the American lawyer when, for example, he examines the constitutionality of trade regulations concerning milk and barber shops under the inconsistent aspect of the police power.

In sections 4 to 7 of the cartel act the minister of economics was given a strong weapon of supervision and dissolution. For if a cartel contract jeopardized the general welfare or economy he could declare the contract illegal or prevent its enforcement. He could grant the right to withdraw to any partner to the contract. Unfortunately the minister of economics has employed this weapon in only three cases in 10 years. (Against a cartel of the brick industry, of the coal trade, and the iron industry.) [1]

One should not jump to the conclusion that these cartels were actually broken up. For even if the minister granted the right to one member to withdraw, the rest might continue to cooperate. But in these instances publicity unfavorable to the cartel and favorable to the recalcitrant member tended to weaken the cartel. For under the so-called Auskunftsverordnung of 1923 the Government was given the power to order enterprises to furnish information regarding all economic conditions and to send examiners without prior notice. This ordinance was amended in 1934 when registration of price agreements was made compulsory.

There is still section 10. This section, giving the cartel court power to grant withdrawal from any contract which is deemed a danger to general welfare and economy, could have become the basis for an effective legislative attack against the abuses of economic power through enterprises and combinations other than cartels, but it never amounted to anything in practice.

In order to bring the story of German cartel development up to date, I shall briefly state essential features of the Kartell Acts of 1930 and 1933. The emergency price control ordinance of July 26, 1930, gave the minister of economics the power to declare price-fixing agreements void without resort to the cartel court. He could also lower or abolish import duties on cartel-controlled commodities. One of the consequences of this ordinance was the dissolution of the Middle German Brown Coal Syndikat in 1931. The ordinance of July 15, 1933, gave the Government power to dissolve all cartel agreements without resort to the cartel court and without judicial review. As a result of this ordinance came the dissolution of the cartel of cast chain manufacturers in 1933, of motorcar tire manufacturers in 1934, and of the Dusseldorf cartel of kiln owners in 1934. By an ordinance of May 16, 1934, cartels were no longer allowed to fix or recommend minimum prices for articles of prime necessity without consent of the Government. An ordinance of August 11,

[1] See Callmann Kartellrecht, p. 350

1934, extended this provision to all articles, not only those of prime necessity.

Before 1933 the only legislation in Germany which brought about compulsory cartelization was that establishing a Zwangskartell in potash in 1910 and in coal in 1919. But the Kartell Act of 1933 became the first of a long and continuous series of regulations establishing compulsory cartels. In this connection I want to point out that a compulsory cartel is not a cartel. In reality it is an effective means of economic planning in the hands of dictatorial government. This sounds strange since not only Germany but also France and England have acts providing for compulsory cartels. But they both were reluctant to exercise this power. Here the distinction between a democratic and totalitarian state becomes apparent: Decrees in a democratic state may create an equally hard pressure on the life of the individuals as it is the case under dictatorship. But there is free speech and the right of everybody to criticize the law, the willingness of the government to meet the challenge and to give way to public opinion; there are parliamentary safeguards and the judges of the courts are servants of the law but not of a dictator. It is not the form of government which decides whether there is democracy or dictatorship but the spirit that inspires all those who are burdened with the responsibility of leadership and their consciousness of the existence of such a responsibility. In my opinion the tremendous success of Hitler is due to his freedom to act without responsibility as compared with other heads of European governments.

Before I turn to the point of the political repercussions of the cartels, I wish to make a personal remark. I have the feeling that we all are still too close to the incidents of the recent development and this does not facilitate an objective judgment about these events. Therefore, I give my opinion with deepest caution and modesty as a merely personal one which may be opposed to others, as I know from discussions even with intimate friends. But I realize the importance of the issues. It is rank cowardice in these parlous times for intellectuals not to devote to the country they love their best energy and skill. I have been frequently asked whether there was any connection between the ease with which the Nazi movement in Germany took over the control of business and the extensive period of cartelization that preceded the coming into power of Mr. Hitler.

The substance of my views in that regard has been admirably stated by the well-known economist-columnist, Mr. John T. Flynn, in one of his regularly syndicated items entitled "Fascism and Business," especially in the following excerpts:

> The story of fascism in Germany is told quickly in a few chapters.
>
> Chapter 1 reveals a nation in a great state of social and economic disorder, depression, unemployment, discouragement.
>
> Chapter 2 shows us a new Messiah, using the Fascist economic philosophy of Mussolini and some new ingredients of his own, promising to redeem the German nation and to bring it order and prosperity.
>
> Chapter 3 brings on the scene certain important financiers and industrialists who say to themselves that what Germany needs is economic control by and in the interest of organized business—self-rule in business. Through Hitler's violent oratory they see that he has this idea too. They therefore decide to back him financially. The whole business middleclass falls in behind him. They see a Germany in which business will rule and order will prevail and prosperity will follow.
>
> Chapter 4 sees all this put into effect * * *. Business does rule in a German improvisation of the corporate state of Mussolini. Only prosperity is lacking.

Chapter 5 sees the beginnings of the search for prosperity. This takes the usual modern form: The borrowing of great sums from the central banks and the spending of these sums on public works and chiefly on armaments.

Chapter 6 looks like success. The military program takes hundreds of thousands out of unemployment and puts them in the shovel armies. The armament program puts hundreds of thousands to work in factories. The public works program makes employment for vast numbers. Unemployment is enormously reduced.

Chapter 7—the financial burdens begin to harass the Government. New and weird forms of financial stratagems have to be invented. The great spending program results in purchasing power. The merchants and manufacturers make larger, even great profits. But the Government has to take away most of these profits to pay the bills.

Chapter 8—the management of what is now an economy of sacrifice becomes increasingly difficult. Businessmen, workers, householders do not too cheerfully undertake endless, daily sacrifices, with food shortages particularly when all are working. So the Government must now resort to intense and minute regimentation. The control of the economy by business begins to vanish. Instead business now finds itself subjected to the very thing it fled from—Government discipline.

These views are corroborated by other accounts of recent developments in Germany. To take but one example, I shall cite Guenter Reimann's recent book entitled "The Vampire Economy." While there is much in his provocative volume with which I completely disagree, the following contentions seem to me to be sound:

The capitalist in Germany is confused. The fascist State has, it is true, saved many private concerns from bankruptcy. Under the totalitarian regime, business has been freed from trade-unionism and strikes, and has therefore been able to depress wages and lengthen working hours at will while huge investments in armaments have resulted in prosperity for many enterprises. Nevertheless, most German businessmen insist that they have lost more under Nazism than have the workers.

The subservience of business men to the Party, the devious dealings and precarious existence which they suffer at the hands of the State, the complete loss of that independence which characterizes capitalist ventures in a non-totalitarian economy have proved a special disappointment to those who helped to finance the Nazi party before it came to power. It was their hope that the Nazi party would serve as their tool. Especially was this the belief of the important industrialists who had feared the loss of their monopolies, and of the big agrarians who could not survive the crisis without fresh State subsidies. Both eagerly sought political power in order to safeguard their positions—not merely against social revolutionary forces, but also against business competitors who attacked their monopolist privileges.

Curious as it may seem, large concerns, trusts and cartels had abolished free competition in the name of free competition, and in the name of the rights of the independent entrepreneur who was typical of an earlier stage of liberal capitalism. Paradoxically, those entrepreneurs who did not attain a monopolistic position and who had to compete with each other in the open market, often, under the Weimar regime, asked State help or interference against "free," that is, ruinous competition. Such a policy leads to a state of affairs where the State becomes a superpower, restricting privileges to a few concerns and trusts which are closely connected with the State bureaucracy and with the armament business and transforming private monopolies into State-protected monopolies.

Neither of these excerpts, however, prove that cartels must necessarily bring about political dictatorship. I disagree with the essentially Marxian doctrine that the accumulation of wealth and the resultant concentration of economic power must by a process of economic determinism result in socialization under political dictatorship. Under this view, if the automatic play of the market does not or cannot be made to perform the task of cooperation, deliberate coordination or economic planning is the only way out. According to this view, an economic plan cannot be formulated if there are numerous independent separate enterprises. The fewer and larger the units of pro-

duction, so they say, the easier the survey and the plan. Thus the reorganization of capitalism from within into a few large units of production paves the way for the planned economy. To be concerned whether the planning agency is the representative of a fascist, communist or other dictatorship, is to make a distinction without a difference.

For I do not see why economic planning is easier when the economic dictator has to deal with only a few large units of production; in other words, when he has to struggle against the willful resistance of powerful group interests. On the contrary, it is much easier to rule a great mass of atomistically dispersed firms, as for example in Russia. Any war economy shows that no matter what the structure of a nation, a government with absolute powers is able to carry out any economic plan.

It seems, however, correct to say that if it is true that cartels lead to dictatorship a distinction between the underlying ideologies of fascism and communism is not justified. In both cases the socialization of capitalism consists in substituting a collective method of work for the individual method. In both cases planning to be successful requires the unification of property in the hands of the planning dictator if the central power is impressive enough to discourage any offensive against its will. In both cases there is a government unhampered by any consideration of Bills of Rights.

In my view when circumstances have ripened into a state of affairs making dictatorship possible, it will result with or without industrial combinations. This seems to me to be amply demonstrated by German experience.

For long before the time that the National Socialists came into power they had their own independently specialized party apparatus. Just as they had their own army in SA and SS troopers, their own governmental authorities in their party hierarchy, so also they had their own economic special groups (Fach-gruppen) as controlling agencies of commercial associations and chambers of industry and commerce. True, they employed the existing organizations whether they had functions to regulate market conditions or not and replaced unfavorable leaders or employees by their own functionaries (Gleichschaltung), but this treatment was not limited to the leadership of cartels. It was applied to all nonparty organizations.

BUSINESS SELF-GOVERNMENT

It is a striking fact, apparently overlooked by many ardent advocates of what is familiarly called business self-government that in Germany we have an experience of about 50 years of increasing self-government of industry. The cartel movement and self-government of industry are to a large extent identical. While there is a good deal in that half-century of experience that can be pointed to both favorable and unfavorable, in my judgment (and in this I am confident I reflect the present-day opinion of the majority of economists and lawyers with expert knowledge on the problems of business self-government), business self-government has on balance not only failed in Germany but probably must fail.

As I have said in the memorandum which I transmitted, about the inadequacy of the uncontrolled self-help, self-control, self-regulation

of businessmen: They are neither accustomed nor trained to arrange their affairs under the aspect of general economic principles. It has perhaps rightly been stated that some of the worst mistakes in policy during the past decade have been made by the so-called "biggest" men, men who control the operations of large industries. The businessman is the last to decide whether competition has become destructive, wasteful, ruinous, "chaos."

I urge with all the emphasis at my command that American businessmen carefully scrutinize German experience with cartels. For it is precisely this self-government of business that was fully legalized since 1887 in German cartel law which is advocated in very high quarters by organizations of business in the United States. In a pamphlet entitled "Policies Advocated by the Chamber of Commerce of the United States," published in Washington, D. C., in 1939 (pp. 5–6), I find the recommendation (and I confess that I am somewhat frightened by it)—

> There should be inquiry into need for legislation permitting industry rules of fair competition, allowing agreements increasing the possibilities of relating production to consumption, affording means for authoritative advice in advance of consummation of mergers and consolidations desirable for normal business reasons, and providing special facilities for curtailment of production in natural resource industries, when the public interest makes it desirable.
>
> There should be such modification of the antitrust laws as would make clear the legality of agreements increasing the possibilities of keeping production in proper relation to consumption, with protection of the public interest at all times through Government supervision of such agreements. There should likewise be opportunity for business concerns desiring to combine to ascertain from a suitable Government authority whether or not there will be violation of the antitrust laws.

The phrases "fair competition" and "Government supervision by suitable Government authority" sound innocuous until one bumps into the phrase "agreements increasing the possibilities of relating production to consumption." It occurs twice. It was precisely the most important reason given by businessmen and by the courts in Germany for the formation and legality of cartels. But German experience amply bears out a criticism which Dr. Lionel Robbins levels at in his notable book on The Great Depression:

> The criterion of restricting supply to demand, which is so loudly proclaimed as the object of these schemes, is no criterion at all. There is no such thing as demand for a commodity, irrespective of its price. And so long as a price exists at all there is unsatisfied demand for the product * * *. For them the underlying principle of restriction—the rationale of the mysterious adjustment of supply to demand to which allusion has been made already—is just this, that no expansion shall be permitted which lowers the value of capital already invested in the industry. No doubt most restriction attempts to do more than this—to raise the value of capital already invested in the industry. But this is not an aim to which public appeal is made. The public policy of restrictionism is the maintenance of the value of invested capital. (Pp. 140–141.)

I agree emphatically, as do practically all conservative and orthodox economists, with Professor Robbins when a few pages further on he states—

> the problem of planning is not to be solved by giving each industry the power of self-government (i. e., restriction of entry and production). This is not planning, it is syndicalism. It merely extends to whole industries the right to make plans for themselves similar to the right already enjoyed by individual entrepreneurs. But by eliminating competition, or potential competition, it creates a state of affairs much less likely to be stable—much more likely to be restrictive—than the so-called chaos of competitive enterprise. (P. 147.)

As Dr. Wilcox stated, cartel prices tend to be high and at times inflexible prices. The evidence presented in these hearings on copper indicates that such prices have high peaks in periods of prosperity followed by attempts to keep them stable as depression sets in. But the pent-up forces break down the best-laid schemes of the most powerful of men. Prices crash from their managed plateaus to levels less than a third or a fourth as high. Then collective restriction of production is put into operation. The artificial boom ends in extreme depression and unemployment.

In my judgment it is no mere coincidence that the world depression was greatest, and subsequent recovery slowest, in precisely those two industrialized nations of modern times, the United States and Germany, where efforts at "rationalization or stabilization" by businessmen had been most encouraged by their respective Governments, and where the economy was least flexible, due to high tariffs and other restrictions upon competition.

German businessmen outdid themselves in the twenties trying to imitate American methods. They heartily concurred in the fallacy which both business and Government promulgated at that time, that by stabilizing or fixing individual prices, and maintaining individual investments intact, even by Government loans to bankers and bondholders, you can stabilize the economy. These efforts, while precisely the goal of most business self-government, tend to exaggerate the swings of business activity and employment.

CONCLUSION

But they do more than that. They lead to more inclusive efforts to stabilize, either by forming mergers or by securing the compulsory powers of government. Cartels, in short, like any other concentration of power, are a great danger to a democracy and therefore an indirect help to those who are not interested in this form of government.

The corporational units are the source from which springs the power and desire of small vested minorities to influence, guide, and control the affairs of the state to which they are, at least nominally, subject. The great magnates standing at the head of immense properties (control very often supersedes ownership) here become important political figures. Their financial support is sought in the waging of political campaigns. They are appointed to serve as economic advisers on governmental committees and commissions. In Germany, where there were also many governmental boards, commissions, and lobbies, the heads or representatives of the great corporations, cartels, trade associtions, chambers of commerce, and industry exercised important, and in many cases dominant, influence. Eventually, no one knew who had whom on the leash: The industry the Government or the Government the industry.

But their aim is ordinarily by no means political influence as an end. Their interests center around the pursuit of profits and they are divided into as many groups as the interests that imbue them. Besides, as an answer to the increasing crystallization of entrepreneurs, labor increases in organizing itself, and in the struggle for control, labor resorts to aid of the state as freely as does capital.

Between all these struggling interests which grow to powerful states within the State the representatives of the State are sometimes

rather helpless. The increasing need for governmental intervention required an increasing number of able men in Government and not seldom the representatives of the minister of economics, e.g., in the cartel court, were too inexperienced and by no means equal to the well-trained representatives of entrepreneurial forces.

Cartels, like all other associations and cumulations of economic power, are tolerable only in a state which is strong enough to supervise them, to reconcile the profit interests of groups with the general welfare of the whole. No truer words in my judgment were ever spoken than those by President Roosevelt in his message to Congress asking for the formation of the Temporary National Economic Committee when he said:

> * * * the liberty of a democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than their democratic state itself. That, in its essence, is fascism—ownership of government by an individual, by a group, or by any other controlling private power.

APPENDIX

Exhibit No. 2076

Types of International and National Cartels[1]

National Cartels:

- I. Cartels regulating phases of sale
  - A. Regulation of sales terms
    - Term cartels
  - B. Regulation of sales prices
    - 1. Calculation cartels
    - 2. Price cartels
      - a. Minimum-price cartels
      - b. Uniform-price cartels
    - 3. Trade-mark cartels
  - C. Regulation of sales profits
    - Profit sharing cartels
  - D. Regulation of sales outlets
    - 1. Territory-preservation cartels
    - 2. Customer-preservation cartels
- II. Cartels regulating production or marketing without central selling agency
  - A. Production regulation without output restrictions
    - 1. Patent cartels
    - 2. Specialization cartels
  - B. Production regulation through marketing restrictions
    - 1 Bidding-regulation cartels
      - a. Order-allocation cartels
      - b. Submission cartels
    - 2. Marketing-restriction cartels with allocation of shares
      - a. Fixed marketing-share cartels
      - b. Marketing-equalization cartels
      - c. Turnover-equalization cartels
  - C. Direct production-regulation cartels
    - 1. Without allocation of shares
      - Plant-restriction cartels
    - 2. With allocation of shares
      - a. Fixed production-share cartels
      - b. Production-equalization cartels
- III. Cartels regulating production and marketing through central selling agency (syndicates)
    - 1. Agency syndicates
    - 2. Independent syndicates

International Cartels:

- I. International shares without preservation of domestic market
- II. International shares with mutual preservation of domestic market
    - 1. Domestic sales included in international share
    - 2. Domestic sales exempted from international share
- III. International shares and specific subshares for each market

[1] Bruno Burn, *Cartels, Codes, and National Planning*, Pp. 195–6.

Exhibit No. 2077

CARTEL TYPES

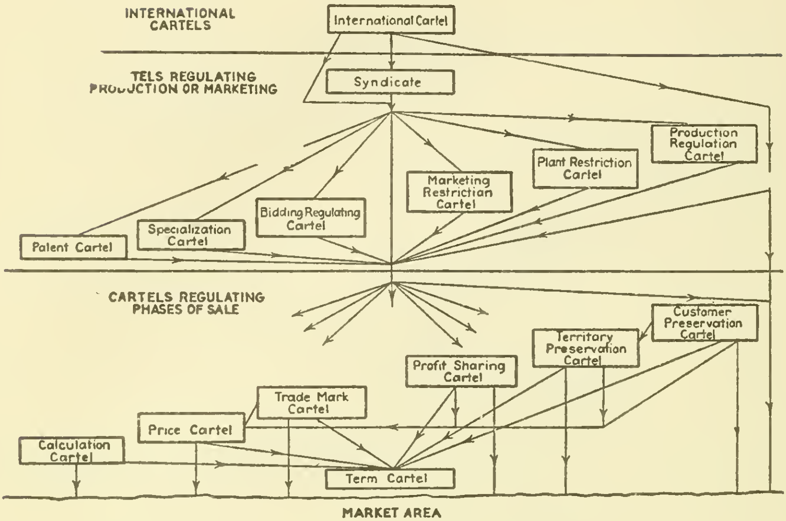


Exhibit No. 2078

Excerpt of Portion of Table of Contents From the Legal Position of Cartels and Concerns in Europe [1]

By Dr. Heinrich Friedlander

LEGAL POSITION OF CARTELS IN GERMANY

[1] Polygraphischer Verlag, Zurich, 1938, 350 pp.

A. History—Continued.
  II. Period since 1933:
    Legislation of National-Socialist Government.
    Amendment of Cartel Decree (law of July 15, 1933, strengthening of power of the Ministry of Economics, elimination of competence of the Cartel Court in cases of annulment of cartels).
    Law instituting compulsory cartels, July 15, 1933.
    Corporate organization of industry and trade (1934).
    Market regulations of "Agricultural Estate."
    Laws and decrees concerning control of prices
B. Legal form of Cartels:
  Civil Company (Joint Adventure) the predominant form—a kind of partnership, the purpose of which does not necessitate the yielding of financial profits.
  Unincorporated Association.
  The corporation as selling agency.
  The "Doppelgesellschaft" or "double company", combination of cartel agreement with the corporation as sales agency.
C. The Cartel Decree of 1923/1933 and its Amendments:
  I-II. What is a Cartel in the opinion of the Courts?
    Broad interpretation by the Cartel Court, narrow interpretation by the Reichsgericht: The Linoleum case (two members are sufficient for forming a cartel); the Talefunken case (concerning combination of cartel agreement and patent regulations).
    Written form of a Cartel Agreement.
  III. Government Interference—Powers of Minister of Economics to annul cartel agreements in case of danger to public welfare (Sections 4–7).
  IX. Cartel members are permitted to withdraw from the agreements without prior notice, for weighty reasons (Section 8). Until 1930: favorable attitude of Cartel Court in cases of withdrawal. Since then a change of attitude: protection of remaining members and protection of cartel organization, considered as a whole, is held to be more held important than individual interest of members, e. g., the Yeast case, the Starch case, the Porcelain case, the Tar case, the Colored Glass case, etc.
  V-VI. Preventive control by Cartel Court in case of boycott and boycott-like measures (deferred rebates, discrimination, stop list, selection of dealers).
    Section 9 of the Cartel Decree is only applicable if (a) the organization in question is a "cartel" in the sense of section I; (b) if the measure in question is a total boycott or a boycott-like measure—a boycott is defined as "a measure which excludes a person from regular business intercourse in goods sold by the cartel while the possibility of trading in these goods is open to other persons in a similar position"; (c) the boycott must be individualized towards a certain firm or group of firms.
    The courts permission may be withheld in order to safeguard the public interest or to protect a competitor against "unreasonable" restriction of his economic freedom.
  VII. The Cartel Court (organization, competence, representation of lay judges in the court).
D. Compulsory Cartel Law of July 15, 1935:
  Two forms of compulsory organization: the establishment of a compulsory cartel by Governmental Decree or the compulsory attachment of outsiders to a voluntary cartel.
  Section 5 empowers the Minister of Economics to prohibit for a definite period of time the establishment of new enterprises within a line of industry or the expansion of existing enterprises or the increase of their productive capacity.

EXHIBIT No. 2079

Examples of international cartels and other industrial understandings by Dr. H. Friedlaender

[Au–Austria; B–Belgium; Cz–Czechoslovakia; D–Denmark; Fi–Finland; Fr–France; G–Germany; Gr. Br.–Great Britain; H–Holland; Hu–Hungary; It–Italy; Ju–Jugo-Slavia, N–Norway; P–Poland; R–Rumania; Sp–Spain; Sw–Sweden; Swi–Switzerland]

Name of Cartel	Nationality of participants	Type of regulation
A. Mining Industries:		
Potash Cartel	G. Fr. P. Sp. Palestine	Allotment of territories and of quotas, common sales agencies.
International Coke Cartel 1936	B. D. G. Gr. Br. H. P	Allotment of sales quotas, Price fixing.
International Steel Cartel (I. R. E. G.)	B. G. Fr. Luxemburg	Allotment of quotas of export.
International Sales Association of the Steel Cartel:		
Group I. Half-finished Products	B. Gr. Br. Cz. Hu. Fi. N. Swi.	Common Sales Agencies.
Group II. Rolled Wire; Thin Sheets, etc		
Group III. Rails		
Continental Tube Understandings (substituted for a Cartel which was dissolved	B. G. Fr. P. Cz	Allotment of territories price fixing.
International Scrap Cartel	G. Gr. Br. It. P. Cz	Common purchasing agency.
Wood Screw Syndicate	B. G. Gr. Br. Fr. It	Swi.
Screw Rivet Cartel	Au. Hu. Ju. P. Cz	Export quotas.
International Railroad Car Cartel	B. Danzig, Fr. G. Gr. Br. H. P. Swi. USA.	Allotment of territories.
Association of European Household Appliance Manufacturers.	Fi. G. Sw. Cz	
B. Metal Industries:		
International Aluminum Cartel	Canada G. Gr. Br. N. Sp. Sw. Swi. Au.	Allotment of quotas.
International Zinc Cartel	B. Fr. G. Gr. Br. H. Hu. It. S . P. Cz.	Allotment of sales quotas.
C. Chemical Industries:		
International Dyes Cartel	Fr. G. Gr. Br. P. Swi	Allotment of sales, quotas of territories.
European Nitrate Fertilizer Cartel	B. Cz. Fr. G. Gr. Br. N. P. Swi. Chile.	Allotment of quotas.
International Bone-Glue Cartel	Au. B. Cz. Den. Fr. G. Gr. Gr. Br. P. R. Hu. Swi.	Price-Fixing, purchasing, sales quotas.
International Citric Acid Cartel	B. Cz. Fr. Gr. Br. It	Price-Fixing, allotment of quotas.
International Saccharine Cartel	Cz. Fr. G. Sw. Swi	Price-Fixing Sales.
International Lead Oxide Convention	Au. B. D. Gr. Br. Cz. H. It	Allotment of territories.
International White Lead Convention	Same members	Same.
International Calcium Carbide Cartel	B. G. Luxemburg N. Sw. Swi.	Price-Fixing, allotment of territories.
International Bismuth Cartel	Cz. Fr. G. Gr. Br. H	Fixing of prices and terms of sales and regulations of production.
International Ferro Silicon Syndicate	Cz. G. Ju. H. Sw. Swi	Allotment of quotas and territories.
International Artificial Horn Cartel	Estonia, Cz. G. Gr. Br	Regulation of prices and sales.
International Council of Tanners	B. Fr. G. Gr. Br. H. It. Sw. USA.	
International Quinine Convention	Dutch East Indies Fr. G. Gr. Br. H. Japan, Swi. USA.	
International Iodide Convention	Fr. Gr. Br. Chile	
Glauber's Salt Syndicate	G. Gr. Br	
International Whale-Oil Syndicate	Gr. Br. H. N	Pooling of Profits.
International Paraffin Cartels	Gr. Br. P. USA	
International Cobalt Association	B. G. Congo, Canada, Morocco.	
D. Ceramic Industries:		
Association of Magnesium Plants	Cz. G. Gr. Br	Regulation of prices and production.
East European Bottle Cartel	Cz. G. Hu. Au	Regulation of sales and production.
International Bottle Cartel	Au. G. H. Hu. Ju. P. R	Allotment of quotas and territories.
International Plate Glass Cartel	B. Cz. Fr. G. H	Regulation of prices and sales.
International Hollow Glass Cartel	Au. Cz. G. It. Hu	
European Porcelain Convention	Au. Cz. Fr. G. It	

Examples of international cartels and other industrial understandings by Dr. H. Friedlaender—Continued

Name of Cartel	Nationality of participants	Type of regulation
E. Electrical Industries:		
International Bulb Cartel	Au. B. D. Cz. G. Gr. Br. H. Hu. It. Sw. Swi. and others.	Cross-licensing fixing of prices and condition of sales, allotment of territories.
International Cartel of Cables for Communication Purposes.	Au. B. Cz. Fr. G. H. No.	Sales prices and terms of sales.
International Cartel of Cables for Power Circuits.	Au. B. Cz. D. Fr. G. Gr. Br. N. Hu. P. Sw. Swi.	Same.
Association of European Enamel Plants		
F. Textile Industries:		
Rayon Cartel	B. Cz. Fr. G. Gr. Br. H. It. P. Sp. Swi.	Common sales agencies, patent pooling.
International Felt Clothes Cartel	Au. B. Cz. Fr. G. Gr. Br. It. N. Sw. Swi.	Price-fixing, terms of sales.
International Linoleum Cartel	Gr. Br. & Europ. Cont. Industries.	
G. Various Manufacturing Industries:		
European Timber Export Convention	Au. Cz. Fi. G. Ju. P. R. Sw. Russia.	Export Association.
International Cement Export Conference	B. D. Fr. G. Gr. Br. N. Sw.	Export Association.
Sulphite Pulp Suppliers	Cz. Fi. G. N. Sw. Memel	Fixing of sales quotas, prices and terms of sale.
International Newsprint Association		
International Rubber Thread Association	Cz. Fr. G. Gr. Br. H. Hu. It. USA.	
International Federation of Diamond Organizations.		
International Association of Dental Supply Articles.	Au. Cz. Fr. G. Gr. Br. Lichtenstein, Swi. USA.	
H. Insurance and Traffic:		
International Traffic Insurance Association.		
The Shipowners Northern Wood Rate Corporation.	D. G. Fi. N. Sw. Esthonia	
International Tanker Owners Association Ltd.		
Danubian Freight Pool		
Freight Pools: Atlantic, La Plata, East Asia, Baltic and West Africa.		
Baltic & International Maritime Conference.	D. G. Gr. Br. Fr. H. N It. Sw.	

Exhibit No. 2080

Agreement Between the Governments of France, The United Kingdom, India, the Netherlands, and Siam to Regulate Production and Export of Rubber [1] London, 7th May, 1934

The Governments of the French Republic, the United Kingdom of Great Britain and Northern Ireland (hereinafter referred to as the Government of the United Kingdom), India, the Kingdom of the Netherlands, and the Kingdom of Siam;

Considering that it is necessary and advisable that steps should be taken to regulate the production and export of rubber in and from producing countries with the object of reducing existing world stocks to a normal figure and "adjusting in an orderly manner supply to demand and maintaining a fair and equitable price level which will be reasonably remunerative to efficient producers," and being desirous of concluding an agreement for this purpose;

Have accordingly agreed as follows—

Article I

The obligations under this Agreement of the Government of the French Republic apply to French Indo-China; those of the Government of the United Kingdom to Ceylon, the Federated Malay States, the Unfederated Malay States, the Straits Settlements, the State of North Borneo, Brunei, and Sarawak; those of the Government of India to India (including Burma); those of the Government of the Kingdom of the Netherlands to the Netherlands Indies; and those of the Government of the Kingdom of Siam to Siam.

[1] International Combines in American Industry by Alfred Plummer, Pitman Publishing Corporation, New York, New York, 1938, Appendix 7 (pp. 272–286).

ARTICLE 2

For the purposes of this agreement—

(a) "Basic quotas" means the quotas referred to in Article 4 (a).

(b) "International Rubber Regulation Committee" means the Committee referred to in Article 15.

(c) "Control Year" means any calendar year during the continuance of this Agreement, or, in the case of the year 1934, the portion of that year between the date of the coming into force of the regulation under Article 3 (b) and the 31st December, 1934.

(d) "Rubber plant" means and includes plants, trees, shrubs, or vines of any of the following—

(A) Hevea Braziliensis (Para Rubber).

(B) Manihot Glaziovii (Ceara Rubber).

(C) Castilloa elastica.

(D) Ficus elastica (Rambong).

(E) Any other plant which the International Rubber Regulation Committee may decide is a rubber plant for the purpose of this Regulation.

(e) "Rubber" includes (a) rubber prepared from the leaves, bark, or latex of any rubber plant and the latex of any rubber plant, whether fluid or coagulated, in any stage of the treatment to which it is subjected during the process of conversion into rubber, and latex in any state of concentration; and (b) all articles and things manufactured wholly or partly of rubber.

(f) "Replanting" or "replant" means planting during the period of the Regulation more than thirty rubber plants on any acre, or seventy-five rubber plants on any hectare of any area carrying rubber plants at the date the Regulation becomes operative.

(g) "Net exports" means the difference between the total imports of rubber into a territory during a period and the total exports of rubber out of that territory during the same period, provided that, notwithstanding the meaning attached to "rubber" elsewhere in this Agreement, imports or re-exports of articles and things manufactured wholly or partly of rubber and rubber consumed in the country of production shall not be included in arriving at net exports.

(h) "Owner" means and includes the proprietor occupier or person in the possession or in charge of a holding or such person as is, in the opinion of the Government concerned, the Manager or Agent of or entitled to act for or on behalf of such proprietor occupier or person.

(i) "Holding" means land on which rubber plants are grown which is in the ownership possession or occupation or is being worked by or under the control of the owner.

(j) "Person," unless the context otherwise requires, includes a company corporation partnership or other body whether corporate or not.

ARTICLE 3

(a) The contracting Governments undertake to take such measures as may be necessary to maintain and enforce in their respective territories, as defined in Article 1, the regulation and control of the production, export, and import of rubber as laid down in Articles 4, 5, 6, 8, 9, 10, 11, 12, and 13 of this Agreement, hereinafter referred to as "the regulation."

(b) The said regulation shall come into operation on the 1st day of June, 1934, and shall remain in force until the 31st of December, 1938, as a minimum period.

(c) Not more than twelve calendar months and not less than nine calendar months prior to the 31st December, 1938, the International Rubber Regulation Committee shall make a recommendation to the contracting Governments as to the continuation or otherwise of the regulation. The recommendation, if in favor of continuation, may suggest amendments to the regulation and include proposals relating to the other provisions of this agreement.

(d) Each contracting Government shall signify to the International Rubber Regulation Committee and to the other contracting Governments its acceptance or rejection of the recommendation referred to in the immediately preceding paragraph within three calendar months after the date of the receipt of such recommendation.

(e) If the said recommendation is accepted by all the contracting Governments, the contracting Governments undertake to take such measures as may be necessary to carry out the said recommenation. The Government of the United Kingdom shall in this event draw up and communicate to all the other contracting

Governments a declaration certifying the terms of the said recommendation and its acceptance by all the contracting Governments.

(f) If the said recommendation is not accepted by all the contracting Governments, the Government of the United Kingdom may of its own motion, and shall, if requested by any other contracting Government, convoke a conference of the contracting Governments to consider the situation.

(g) Unless a recommendation to continue the regulation is accepted under paragraphs (d) and (e) above, or unless an agreement for continuation is concluded between the contracting Governments at the conference referred to in paragraph (f) above, the regulation and all the obligations arising out of this agreement shall terminate on the 31st December, 1938. If at the conference referred to in paragraph (f) above an agreement for continuation is concluded between some but not all of the contracting Governments, the regulation and all the obligations arising out of this agreement shall terminate on the 31st December, 1938, in respect of any contracting Government not a party to the agreement for continuation.

ARTICLE 4

In the case of the Straits Settlements, the Federated Malay States, and the Unfederated Malay States and Brunei (which shall be deemed to constitute a single group of territories for this purpose), and of the Netherlands Indies, Ceylon, India (including Burma), the State of North Borneo, Sarawak, and Siam, the exports of rubber from the territory shall be regulated in accordance with the following provisions—

(a) The following annual quantities in tons of 2,240 English pounds dry rubber shall be adopted as basic quotas for each territory or group of territories for the control years specified—

	1934	1935	1936	1937	1938
	Tons	*Tons*	*Tons*	*Tons*	*Tons*
Straits Settlements, Federated Malay States, Unfederated Malay States, and Brunei	7/12 of 504,000	538,000	569,000	589,000	602,000
Netherlands India	7/12 of 352,000	400,000	443,000	467,000	485,000
Ceylon	7/12 of 77,500	79,000	80,000	81,000	82,500
India	7/12 of 6,850	8,250	9,000	9,000	9,250
Burma	7/12 of 5,150	6,750	8,000	9,000	9,250
State of North Borneo	7/12 of 12,000	13,000	14,000	15,500	16,500
Sarawak	7/12 of 24,000	28,000	30,000	31,500	32,000
Siam	7/12 of 15,000	15,000	15,000	15,000	15,000

(b) "The International Rubber Regulation Committee shall fix from time to time for each territory or group of territories a percentage of the basic quota." Except in the case of Siam, the percentage of the basic quota fixed by the International Rubber Regulation Committee shall be the same for each territory or group of territories. In the case of Siam, the percentage of the basic quota for that territory shall not be less than 50 percent for the year 1934, than 75 per cent for the year 1935, than 85 per cent for the year 1936, than 90 per cent for the year 1937, and 100 per cent for the year 1938.

(c) In each control year the quantity of rubber, which is equivalent to the percentage so fixed of the basic quotas of each territory or group of territories, constitutes for that territory or group of territories the "permissible exportable amount" for such territory or group of territories.

ARTICLE 5

The net exports of rubber from each territory or group of territories shall be limited to the "permissible exportable amount";

Provided that (1) in any control year the net exports may be permitted to exceed the "permissible exportable amount" by a quantity not greater than 5 per cent of that amount but, if the "permissible exportable amount" is exceeded in any year, the net exports for the immediately following control year shall be limited to the "permissible exportable amount" for such year less the amount of such excess for the previous year.

(2) If any territory or group of territories has exported in any control year less than its "permissible exportable amount," the net exports from such territories or group of territories for the immediately following year may be permitted to exceed the "permissible exportable amount" for such year by an amount equal to

the deficiency below the "permissible exportable amount" for the previous year if such deficiency was not more than 12 per cent of such "permissible exportable amount," or equal to 12 per cent of such "permissible exportable amount" if the deficiency exceeded 12 per cent;

(3) In the case of the group of territories comprising the Straits Settlements, the Federated Malay States and the Unfederated Malay States and Brunei, the obligations arising under this Article may be executed (a) by controlling the actual production of rubber on the islands of Singapore and Penang (parts of the Straits Settlements), and (b) by controlling the exports of rubber from the remainder of this group of territories in such a manner that the total of the production of rubber during the control year in question in Singapore and Penang, together with the net exports of rubber during the said year from the remainder of the group of territories, shall not exceed the amount of the "permissible exportable amount" for the whole group of territories.

(4) For the purpose of the preceding proviso and of the provisions of Articles 9, 10, and 13 below, the entry of rubber from the remainder of the group into Singapore or Penang, or vice versa, shall be deemed to be an export or import as the case may be.

ARTICLE 6

In the case of French Indo-China, the Administration (i) shall maintain a complete record of all rubber leaving the territory and will establish such control as is necessary for this purpose, and (ii) on the happening of the events specified in paragraphs (a) or (b) below, shall cause the quantities of rubber specified in those paragraphs (taken in conjunction with paragraphs (c) and (d) to be delivered to the order of the International Rubber Regulation Committee in accordance with the provisions of paragraph (e) below—

(a) If in any control year the total quantity of rubber leaving French Indo-China for any part of the world shall exceed 50,000 tons (of 2,240 English pounds), but shall be less than the total quantity of unmanufactured rubber entering and retained in France in that year, a quantity of rubber shall be delivered equivalent to 10 per cent of the amount by which the total quantity of rubber leaving French Indo-China exceeds 30,000 tons.

(b) If in any control year the total quantity of rubber leaving French Indo-China exceeds the total quantity of unmanufactured rubber entering and retained in France in that year, a quantity of rubber shall be delivered equivalent to 10 per cent of the difference between 30,000 tons and the amount of the retained quantity aforesaid, together with an additional quantity corresponding to a percentage of the difference between the total quantity of unmanufactured rubber entering and retained in France, and the total quantity of rubber leaving French Indo-China for any part of the world during that year, such percentage being the average percentage of reduction of basic quotas which shall have been applied in that year in the territories specified in Article 4, excluding Siam.

(c) The quantities above mentioned or referred to shall be reduced for the control year ending the 31st December, 1934, to 7/12ths of those quantities.

(d) Provided, however, that the quantity of rubber to be delivered by French Indo-China in any control year shall not exceed a quantity equal to the percentage of the total quantity of rubber leaving French Indo-China corresponding to the average percentage of reduction of the basic quotas which shall have been applied in that year in the territories specified in Article 4, excluding Siam.

(e) The quantities of rubber referred to in paragraphs (a) and (b) above (taken in conjunction with paragraphs (c) and (d)) shall be notified to and agreed with the International Rubber Regulation Committee and delivered free of cost and all charges in the form of Singapore standard sheets or Singapore standard crepe, to the order of the International Rubber Regulation Committee in Singapore (or in any other port or place selected by the International Rubber Regulation Committee) within three months after the expiration o the control year in question.

ARTICLE 7

The International Rubber Regulation Committee may dispose of all rubber delivered in accordance with the provisions of the preceding Article in such manner as it shall deem to be most beneficial to the objects which are envisaged in the provisions of the present Convention.

ARTICLE 8

The provisions of Articles 9, 10, 11, 12, 13, and 14 below apply to all the territories specified in Article 1 unless the contrary is expressly stated.

ARTICLE 9

The exportation of rubber from a territory or group of territories shall be prohibited under penalties that will be effectively deterrent, unless such rubber is accompanied by a certificate of origin duly authenticated by an official duly empowered for this purpose by the Administration of the territory or group. The penalties which may be imposed for this offence shall include (a) the destruction, and (b) the confiscation of the rubber. This Article does not apply to the islands of Singapore and Penang.

ARTICLE 10

The importation of rubber into a territory or group of territories shall be prohibited, under penalties that will be effectively deterrent, unless such rubber is accompanied by a certificate of origin duly authenticated by a competent official of the Administration of the territory or group of origin. The penalties which may be imposed for this offence shall include (a) the destruction, and (b) the confiscation of the rubber.

ARTICLE 11

(a) Every owner shall be prohibited, under penalties that shall be effectively deterrent, from having in his possession or under his control within a territory or group of territories at "any time stocks of rubber exceeding 20 per cent of the quantity of rubber wholly grown and produced and removed from his holding during the preceding twelve months, or, alternatively, a quantity equivalent to twice the amount he is entitled to export during any month."

(b) The total of all other stocks of rubber in the territory shall be limited to a quantity not exceeding 12½ per cent of its "permissible exportable amount" for the control year.

(c) The preceding provisions of this Article do not apply to French Indo-China, India (including Burma), the islands of Singapore or Penang, Sarawak, or Siam, but in India (including Burma), Sarawak, and Siam the stocks of rubber shall be limited to normal proportions having regard to the amount of rubber internally consumed.

ARTICLE 12

(a) Except as provided in paragraphs (b) and (c) of this article, "the planting of rubber plants during the period of the Regulation shall be prohibited absolutely" under penalties that shall be effectively deterrent, such penalties including the compulsory eradication and destruction at the expense of the owner of the plants so planted.

(b) In Siam the planting of an area not exceeding in the aggregate 31,000 acres may be permitted.

(c) In all territories—

(i) The planting of small areas for exclusively experimental purposes may be permitted provided that during the period of the Regulation the total area of such permitted plantings in any territory or group of territories shall not exceed the equivalent of one-quarter of 1 per cent of that territory's or group's ascertained total area planted at the date of commencement of the Regulation.

(ii) The limited replanting of areas at present carrying rubber plants may be permitted upon the following conditions: An owner who desires to replant part of his holding shall be obliged first to notify the Administration of the territory or group of territories of his intention to replant and to give such particulars of the proposed replanting as may be required by the Administration, and he may then be permitted to replant in any control year to the extent set out in such particulars "an area not exceeding 10 per cent of the total planted area of his holding in the territory" or group of territories at the date of commencement of the Regulation, provided that the aggregate of the areas so replanted during the minimum period of the Regulation (specified in Article 3 (b)) shall not exceed 20 per cent of such total planted area of his holding.

ARTICLE 13

The exportation from the territory or group of territories of any leaves, flowers, seeds, buds, twigs, branches, roots, or any living portion of the rubber plant that may be used to propagate it shall be prohibited under penalties that shall be effectively deterrent.

ARTICLE 14

The contracting Governments and the Administrations of the territories or group of territories to which the present Agreement applies will co-operate with each other to prevent smuggling evasions and other abuses of the Regulation.

ARTICLE 15

(a) An International Committee, to be designated "The International Rubber Regulation Committee," shall be constituted as soon as possible.

(b) The said Committee shall be composed of delegations representing the territories or groups of territories to which the present Agreement applies, and the numbers of the respective delegations and the numbers of the persons who may be nominated as substitutes to replace members of delegations who are absent shall be as follows—

	Members	Substitute Members
(1) Straits Settlements, Federated Malay States, Unfederated Malay States, Brunei	4	2
(2) Netherlands India	3	2
(3) Ceylon	2	1
(4) India, including Burma	1	1
(5) French Indo-China	1	1
(6) State of North Borneo	1	1
(7) Sarawak	1	1
(8) Siam	1	1

(c) The Government of the United Kingdom shall be informed as soon as possible by the other contracting Governments of the persons first designated as members of delegations representing their respective territories. All subsequent changes in the membership of delegations shall be notified by communications addressed to the Chairman of the Committee.

(d) The Government of the United Kingdom will convoke the first meeting of the Committee as soon as possible, and may do so when the members of six delegations have been designated.

(e) The principal office of the Committee shall be in London and its meetings shall be held in London. The Committee shall make such arrangements as may be necessary for office accommodation and may appoint and pay such officers and staff as may be required. The remuneration and expenses of members of delegations shall be defrayed entirely by the Governments by whom they are designated.

(f) The proceedings of the Committee shall be conducted in English.

(g) The Committee shall at its first meeting elect its Chairman and Vice-Chairman.

(h) The Chairman and Vice-Chairman shall not be members of the same delegation.

(i) Meetings shall be convened by the Chairman, or in his absence by the Vice-Chairman. Not more than three calendar months shall elapse between any two consecutive meetings. An extraordinary meeting shall be convened at any time at the request of any delegation within seven days of the receipt of the request by the Chairman.

(j) The Committee shall perform the functions specifically entrusted to it under Articles 3 (c), 4 (b), 6, 7, 17, and 18 of this Agreement, and shall, in addition, collect and publish such statistical information and make such other recommendations to Governments relevant to the subject-matter of this Agreement as may seem desirable, in particular with reference to the disposal of any rubber which may come into the ownership of any Government as the result of the carrying out of Articles 9 and 10 of this Agreement. The Committee shall do all such other lawful things as may be necessary, incidental or conducive to the carrying out of its functions, and give such publicity to its actions as it may deem necessary or desirable.

(k) Each delegation shall vote as one unit. In case of delegations composed of more than one member, the name of the member entitled to exercise the vote shall be communicated in case of the first meeting of the Committee to the Government of the United Kingdom and thereafter to the Chairman of the Committee. The voting member may in case of absence, by communication to the Chairman, nominate another member to act for him.

(l) Each delegation shall possess a number of votes calculated on the basis of "one vote for every complete 1,000 tons of the basic quota of the control year for the time being for the territory or group of territories represented by that delegation," and for the purpose of voting the territory of French Indo-China shall be deemed to have the following quotas, viz.—

	Tons
1934	22, 500
1935	27, 000
1936	34, 000
1937	44, 000
1938	52, 000

(m) The presence of voting members of at least four delegations shall be necessary to constitute a quorum at any meeting; provided that if within an hour of the time appointed for any meeting a quorum as above defined is not present, the meeting may be adjourned by the Chairman to the same day, time, and place in the next week, and if at such adjourned meeting a quorum as defined above is not present, those delegations who are present at the adjourned meeting shall constitute a quorum.

(n) Decisions shall be taken by a majority of the votes cast; provided that—

(i) A decision fixing or varying the permissible exportable percentage of the basic quotas, or making or modifying or abrogating the rules of procedure shall require a three-fourths majority of the total votes which could be cast by all the delegations entitled to vote, whether such delegations are present or not;

(ii) The delegations representing French Indo-China shall only be entitled to participate in any discussion or vote on the permissible exportable percentage of the basic quotas if and so long as this territory is conforming to the Regulation on the basis of Article 6 (b).

(o) The Committee shall at the beginning of each control year draw up its budget for the forthcoming year. The budget shall show under appropriate headings and in reasonable detail the estimate of the Committee of its expenses for that year. The budget shall be communicated to the contracting Governments and to the Administrations of the territories or group of territories to which the present Agreement applies, and shall show the share of the expenses falling upon each territory or group of territories in accordance with the provisions of Article 16.

As soon as possible after the end of each control year, the Committee shall cause to be drawn up and audited by a duly qualified chartered accountant a statement of account showing the money received and expended during such years. The statement of account shall be communicated to the contracting Governments and to the Administrations of all territories or group of territories to which the present Agreement applies.

(p) The Committee may draw up, put into force, modify, or abrogate rules for the conduct of its business and procedure as may from time to time be necessary, provided that its rules of procedure shall be at all times in conformity with the preceding provisions of this Article.

ARTICLE 16

The expenses of the International Rubber Regulation Committee shall be defrayed by the Administrations of all territories or group of territories to which the present Agreement applies, other than Sarawak and Siam. One half of the contribution for the whole year of each territory or group of territories, as shown in the budget drawn up by the Committee, shall be paid immediately on receipt of the budget by the contracting Governments, and the balance of such contribution not later than 6 months after this date. The contribution of each territory or group of territories shall be proportionate to their respective basic quota for the control year to which the budget relates. The basic quotas of French Indo-China for this purpose shall be those specified in Article 15 (l).

ARTICLE 17

(a) The Administrations of each of the territories or group of territories to which the present Agreement applies shall not later than the 1st January, 1935, communicate to the International Rubber Regulation Committee a declaration showing the total ascertained area in the territory or group planted with rubber on the 1st June, 1934.

(b) Each Administration will furnish to the International Rubber Regulation Committee all reasonable assistance to enable the Committee properly and effi-

ciently to discharge its duties. Such assistance shall include all necessary statistical information and ample facilities to duly accredited agents of the Committee for the investigation of the manner in which the regulation is being carried out in the territory.

ARTICLE 18

The International Rubber Regulation Committee shall be empowered to, and shall within one month after the date of its first meeting, invite the body or bodies they consider most representative of rubber manufacturers to nominate three persons representative of such manufacturers, of whom one shall be representative of manufacturers in America, and such representatives shall form a panel who will be invited to tender advice from time to time to the International Rubber Regulation Committee as to world stocks, the fixing and varying of the permissible exportable percentage of the basic quotas, and cognate matters affecting the interests of rubber manufacturers.

ARTICLE 19

The contracting Governments, recognizing that a natural balancing of production and consumption can be hastened by research with a view to developing new applications and by propaganda, declare that they will consider the possibility of (i) levying and collecting a uniform cess on the net exports from their respective territories during the period of the Regulations for the purpose of supporting such research and propaganda, and (ii) co-operating in the constitution of an International Rubber Research Board to plan the research and propaganda. If the proposals specified in this article are put into operation, no financial contribution will be expected in respect of Sarawak or Siam.

In witness whereof the undersigned plenipotentiaries, being authorized to this effect by their respective Governments, have signed the present Agreement and affixed thereto their seals.

Done at London this 7th day of May, 1934, in a single copy, which shall remain deposited in the archives of the Government of the United Kingdom, and of which duly certified copies shall be communicated by the Government of the United Kingdom to each of the other contracting Governments.

For the Government of the French Republic:
Ch. Corbin.

For the Government of the United Kingdom of Great Britain and Northern Ireland:
John Simon.
P. Cunliffe-Lister.

For the Government of India:
Subject to reservations annexed:
B. N. Mitra.

In signing this Agreement on behalf of my Government, I have been instructed to make the following reservations—

(a) The accession of the Government of India is subject to the agreement and co-operation of rubber-producing "Indian States" in India, in which areas the Government of India has no power to maintain or enforce the restriction. The terms of the Inter-Governmental Agreement have been brought to the notice of the States concerned, and the Government of India has every reason to believe that they will act in accordance with its provisions.

(b) In so far as legislative action will be necessary to implement the terms of the Agreement, the accession of the Government of India is subject to the approval of the Indian Legislature.

(Signed) B. N. Mitra.

7th May, 1934.

For the Government of the Kingdom of the Netherlands:
R. de Marees van Swinderen.

For the Government of the Kingdom of Siam:
Subject to ratification:
Phya Subarn Sompati.

NOTES

1. A Protocol, dated 5th February, 1937, between the governments of France, the United Kingdom, India, the Netherlands, and Siam, amended Article 4 (a) of the above agreement to read as follows—

	1936	1937	1938
Netherlands India	500, 000	520, 000	540, 000

2. In February, 1938, the Rubber Regulation Committee decided to recommend to the governments concerned the continuance of the rubber control scheme, subject to certain modifications, for a further period of five years. The total planted area to be covered by the Agreement is–

	Acres
Straits Settlements, Federated Malay States, Unfederated Malay States, and Brunei	3,273,100
Netherlands India	3,192,400
Ceylon	605,200
French Indo-China	314,200
India	128,000
Burma	104,400
State of North Borneo	126,600
Sarawak	215,800

The provisional modifications included the removal of the ban on new planting and the permission of new planting up to 5 per cent of total planted areas (equal to about 400,000 acres), while replanting can proceed freely until the end of 1940, when the position is to be reviewed. The deficit from the permissible exports which may be carried over to the following year is reduced from 12 per cent to 10 percent. The stocks which estates of 100 acres and over are allowed to hold are raised from two months' to three months' stocks, and the basis of calcualtion is made more precise. It is suggested that the representatives of the United States manufacturers on the Advisory Panel should be increased to two. New basic quotas designed to conform as closely as possible to relative productive capacities over the five years, 1939–43, have been worked out, and these are given in the following table—

	1939	1940	1941	1942	1943
		(Long tons)	*(Long tons)*		
Straits Settlements, F. M. S., U. M. S., and Brunei	632,000	642,500	648,000	651,000	651,500
Netherlands India	631,500	640,000	643,500	650,000	651,000
Ceylon	106,000	107,500	109,000	109,500	110,000
India	17,750	17,750	17,750	17,750	17,750
Burma	13,500	13,750	13,750	13,750	13,750
State of N. Borneo	21,000	21,000	21,000	21,000	21,000
Sarawak	43,000	43,700	44,000	44,000	44,000
Siam	54,500	55,300	55,700	56,000	60,000
Total	1,519,000	1,541,500	1,554,700	1,563,000	1,569,000

It will be seen that the new figures now leave only a negligible difference between Malaya and the Dutch East Indies ("Netherlands India"). The renewal of the agreement was supported by the Rubber Growers' Association, the Internationale Vereeniging voor de Rubbercultuur (Holland), the Union des Planteurs de Caoutchouc en Indochine (France), and by the Advisory Panel of Manufacturers.

EXHIBIT NO. 2081

PLAN FOR THE FORMATION OF THE TANKER POOL[1]

1 FREDERICK'S PLACE,
OLD JEWRY, LONDON, E. C. 2,
March 1, 1934.

DEAR SIR: 1. For some time past an International Committee of Tank-Ship Owners has been sitting for the purpose of considering proposals for the amelioration of the present conditions in the tanker freight market.

2. In view of the volume, of laid-up tanker tonnage which is depressing the market, it is evident that until there is a definite increase in demand, there can be no material improvement in the freight market, unless some plan is adopted which offers an inducement to owners to refrain from accepting uneconomic rates. In present conditions of supply and demand an excessive increase in rates would be neither justified nor desirable, but there is no reason why the owners of tanker tonnage should continue to run their vessels at rates which, so far from giving them any return on their capital, do not even provide for depreciation.

[1] "Control of Ocean Freight Rates in Foreign Trade", by Albert E. Sanderson, U. S. Department of Commerce, Trade Promotion Series—No. 185 (pp. 6–9).

3. Having these basic facts in mind, the committee now submits to you the enclosed plan to be known for convenience of reference as the Schierwater Plan. The documents relating to the plan are of necessity rather lengthy, as it has been considered prudent to provide, so far as could be foreseen, for all likely contingencies, but the principles of the plan are simple. The main features are:

The formation of an association, the members of which will pay in to a common pool a percentage of all freights received by them on charters made after the plan becomes operative. The proceeds of these contributions, less the necessary expenses, will be distributed among the vessels which are laid up, thus providing a definite inducement to owners to refrain from accepting uneconomic rates.

4. This should result in an automatic rise in freights by which all members will benefit. This rise should not merely be in the gross freights but in the net freights received after deduction of the pool percentage, as naturally an owner will not accept a rate unless he is satisfied that by doing so he will be at least as well off as by drawing laying-up allowance from the pool.

5. The percentage of his freight which the owner will pay to the pool, will, it is assumed, in practice, not come out of his pocket, as in calculating his costs he will simply include his contribution as he now does his port and other charges, with the knowledge that competing owners are in the same position.

6. There is no attempt under the plan to fix freight rates or to control the movements of vessels. Each owner will retain his complete independence and is at liberty to accept whatever rates he may think desirable in his particular circumstances. He may run his vessels, or lay them up, as he may prefer, without consulting the association.

7. The pool is confined to tanker vessels of 2,000 tons gross and over.

8. The foregoing in brief outline is the essence of the plan.

Other features to which attention is drawn are—

9. That the affairs of the association controlling the pool will be in the hands of an international council, domiciled in London, consisting of representatives from each country, elected by the owners in the different countries on the basis of the tonnage entered in the pool and registered in each country. The powers of the council are defined in the articles of association.

10. That a leading firm of chartered accountants shall be appointed by the council to act as secretaries to the pool and to keep and check the accounts of the pool. The committee has made arrangements with Messrs. Price, Waterhouse & Co., of London, by which this firm will act as the first secretaries.

11. A point to which the committee has given very serious thought is the allocation of laying-up allowance as between Diesel vessels and steamers. It is generally admitted that, ignoring depreciation, Diesels can work at a lower cost than steamships and for some time past a very large majority of fixtures have been secured by Diesel vessels.

The outlook for steamers under present conditions is undoubtedly gloomy, but it must be recognized by the owners of Diesel vessels that any rise in freights can only be very limited unless steamers are provided for in the plan. Having all circumstances in mind, the committee considers that the regulation which provides that the tonnage of a steamer shall rank as 70 percent only of its actual tonnage for the purpose of drawing laying-up allowance, is a fair and equitable solution.

12. *Sale of vessels.*—Rule 6 of the rules of the association is inserted with the intention of preventing "fictitious" sales, made with the object of avoiding pool contributions. There is no restriction on genuine sales, as it is recognized that many owners would be unwilling or unable to bind themselves in this respect.

13. Although the maximum percentage payable to the pool on voyage charters has been fixed at 33⅓ percent of the gross freight, the intention of the committee is to recommend that at the commencement of operations a rate of 10 percent to 15 percent be levied.

No contributions will be payable on charters made prior to the date on which the plan becomes operative.

14. A small entrance fee of £2 2s. per tank vessel will be payable on entering the pool and the council will have power to charge an annual subscription of not exceeding the same amount. These sums are required toward the expenses of the formation and management of the association.

15. *Membership.*—All European owners are being invited to join the pool forthwith, and steps are being taken to secure the cooperation of owners outside Europe.

16. *Brokers.*—In accordance with the principle of independence, no actual rule has been formulated regarding the employment of brokers, but it is hoped that in

their own interests members will confine their business to brokers who will give full support to the pool and operate exclusively for its members. It is proposed to keep a register of brokers who will give such an undertaking and, in view of the benefits which brokers will receive due to the higher freight rates, we think it reasonable that every bona-fide broker should be on this register.

17. The principal owners of tank vessels which are associated with a number of the largest oil companies, owning between them approximately 3,000,000 tons dead weight, and whose vessels are employed primarily in carrying oil cargoes of such oil companies, have expressed their approval of the plan.

These owners have arrived at an understanding with the committee, which will be given effect to in an agreement with the association which will be signed when the council meets.

This agreement will provide (inter alia)—(a) That during the existence of the pool, the signatory companies will confine their chartering to members of the pool and on the closing of the pool they will give preference on equal terms in chartering to those owners who have been members. This preference will continue for a period of 3 years after the closing of the pool or for such less period as may equal the time for which the pool continued in operation. This undertaking is not, however, to prejudice the right of interchartering between the signatory companies.

(b) That until, in their opinion, a general improvement in the oil trade warrants such a course, the signatory companies will not put into service any of their vessels at present laid up (unless under repair) except that they will be permitted to substitute individual vessels laid up for an approximately equal tonnage of vessels now running, to build and put into service any new tank vessels, and to acquire and put into service any tank vessel to replace any tank vessel which may be sold for breaking up whether such latter vessel be laid up or not.

(c) While the signatory companies do not contemplate placing their own or their time chartered tonnage on the open market in competition with pool members of the association, their right to do so will remain unchanged but should they exercise this right and charter their vessels to others (not being parties to this agreement) they will pay to the pool the full pool member's percentage contribution on such charters.

(d) Should any of the signatory companies' vessels so chartered be subsequently laid up, they will be entitled to laid-up allowance at half rate only and the total sum payable to them in respect to laid-up allowance on any one vessel shall not exceed the total amount of contributions made in respect of that vessel.

(e) The signatory companies will contribute to the pool funds a sum based on the oil carried by them in their own vessels from a date 2 months after the commencement of the pool operations. This contribution will not, however, be payable during any period in which the pool members' contributions are fixed at a rate of less than 25 percent of gross freight earned.

In the opinion of the committee, it would not be desirable in the first instance to fix pool members' contributions as high as 25 percent, and, this being the case, it must be understood that no credits from the signatory companies' contributions can be expected at the inception of the pool.

(f) The right is reserved to any signatory company to withdraw from the agreement at anytime and particularly if the pool either at the commencement or at any time thereafter fails to embrace 100 percent of the tonnage contemplated under the scheme or fails to work satisfactorily.

The committee, however, is authorized to say that while the signatory companies have considered it necessary to safeguard their interests by certain conditions, their intention is to interpret the agreement in a broad sense and with the underlying idea that they are sympathetic to the aims of the plan and wishful to make it mutually beneficial.

18. *Possible results.*—The committee feels that it is not within its province to attempt a forecast of probable results which must necessarily depend upon the demand for tonnage.

As some guide to owners who may wish to form their own estimates, it may be useful to say that recently compiled statistics indicate that of the independently owned tanker vessels affected by the plan, approximately 1,500,000 dead-weight tons are in employment apart from long-term time charters and about 1,000,000 dead-weight tons laid up.

19. There is no suggestion that the plan will increase the volume of business available to owners, but it is hoped that it will insure that such business as is done will provide some return to members on the capital invested in their tonnage whether runing or laid up.

20. The members of the committee, whose names appear at foot, represent about 800,000 dead-weight tons, all of which will be entered.

21. Every effort has been made to deal fairly with al interests, and the provisions of the plan are so flexible that the council should be able to meet any conditions which may arise from time to time.

22. It is hoped that you will sign and return the enclosed form without delay, as prompt action is of great importance.

23. Unless the response is such that the committee is satisfied that the plan will be effective, it will not be proceeded with and you will be released from your undertaking. Furthermore, should the plan be put into operation and subsequently for any reason be found not to be working to the benefit of members in general, the council has power to suspend its operations or to declare it at an end.

24. The rules provide that the pool must be closed by the council at the request of members representing 25 percent of the tonnage entered and provision is made in the articles by which a member may resign his membership.

25. In the event of it being decided to proceed with the plan, owners will be advised by telegram, and such advice will include notification regarding the rate of contribution in force.

Yours faithfully,

H. T. SCHIERWATER, *Chairman.*

MEMBERS OF COMMITTEE

Giuseppe Chiarella ("Petroleum" S. A. di Navigazione, "Perseveranza" S. A. di Navigazione), Genoa; W. Molyneux Cohan (H. E. Moss & Co.), Liverpool; William Davies (Davies & Newman), London; W. H. de Monchy (N. V. Phs. Van Ommeren's Scheepvaartbedrijf), Rotterdam; J. T. Essberger, Hamburg; H. Hoogland (Blidberg Metcalfe & Co.), Goteborg; P. Ll. Hunting (Hunting & Son, Ltd.), Newcastle-on-Tyne; A. P. Moller, København; D. Paust (Fearnley & Eger, Oslo; J. Perrachon (Compagnie Auxiliaire de Navigation, Paris; A. Rapp (The British Oil Shipping Co., Ltd.), London; H. T. Schierwater (The United Molasses Co., Ltd.), London.

EXHIBIT No. 2082

TEXT OF FRANCO-GERMAN POTASH ACCORD SIGNED AT PARIS, DECEMBER 29, 1926 [1]

Between the Deutsches Kalisyndikat, G. m. b. H. of Berlin, hereafter named "the Syndicate," party of the first part, and

(a) the Societe Commerciale des Potasses d'Alsace, situated in Paris and Mulhouse;

(b) Les Mines Domaniales de Potasses d'Alsace, at Mulhouse; and

(c) the Societe Anonyme des Mines de Kali Sainte Therese, Mulhouse, hereafter named "the Society" (La Societe), party of the second part, the following agreement has been concluded following the Lugano agreement of April 10, 1926:

ARTICLE I. To the Syndicate is reserved exclusive rights to sell in Germany, as well as in possible German colonies, protectorates, and mandates.

To the Society is reserved the exclusive right to sell in France, in French colonies, protectorates, and mandates.

The two parties agree to take all necessary measures to prevent any exportations or reexportations from these territories by a third party without special authorization.

In the case where the reserved territories are used as countries of transit, the final destination of the goods will be placed under a rigorous supervision. The measures taken for this control will be communicated to the other party.

The exclusive sales rights apply to the following potash salts:

1. Ores containing potash, which are reduced in the mines, crude salts in solid or dissolved form.

2. Chloride of potash, sulphate of potash, sulphate of potash magnesia, the different potash salts used as fertilizers, and all potash products, which, as a general rule, are produced directly from crude potash salts, as well as the residues of these products containing potash.

3. Mixtures of crude and refined salts; that is to say, mixed salts. Beginning May 1, 1937, all exports of potash from the mines, in whatever form they may be, will be subject to the conditions of the present contract of the two parties and reckoned in terms of K_2O. This will hold true also for compound fertilizers (containing potash) produced by present processes or those which may develop in the future.

[1] *Representative International Cartels, Combines and Trusts*, William F. Notz, Department of Commerce, Trade Promotion Series, No. 81 (GPO, Washington, D. C. 1929).

The two parties shall come to an agreement, as soon as possible, with regard to the prices and conditions to be established for potash used in the manufacture of different preparations for export, outside of territories reserved for both parties, as well as the form and method of control to be adopted for this purpose.

The exclusive sales rights conceded to France and Germany in the territories under their control carry with them, for each party, the prohibition to make deliveries of potash salts for export, in no matter what form, into the territory of the other party.

No derogation of this last clause can be effected, save under exceptional circumstances, and for special chemical products in which the potash content is of a secondary part.

Nevertheless, in calculating the amount of each party's participation, the deliveries made for this manufacture will be included in the quota accounting, has been previously arranged.

ARTICLE II. The adhesion to the present contract by the French owners of the potash mines—that is, the owners of the Mines Domaniales de Potasse d'Alsace and the Mines de Kali Sainte-Therese, conjointly with the Societe Commerciale des Potasses d'Alsace—has as an objective the guaranty that in the case of the cessation of the Societe Commerciale des Potasses d'Alsace these owners shall remain bound in their own names by this contract for its whole duration.

In the same manner, all the owners of the German mines are equally bound personally as members of the Kalisyndikat.

In Germany all the potash mines or plants are obliged to adhere to the Syndicate from the beginning of their production.

In France the owners of the mines adhering to the Society agree to try to bring about the adhesion to the Societe of all new exploiters of potash mines or plants, just as the German mines form part of the Syndicate.

In the case of the creation, in the countries reserved to the two parties of new potash mines or of new plants for the transformation of potash originating from the mines, their exports shall be included in the respective foreign-sales quotas of the Syndicate and the company.

The signatories of the contract obligate themselves to take all necessary measures which will effect the reporting and control of the quantities of potash salts and manfuactured products originating from the mines, which may be exported by new producers not adherent to the present contract.

ARTICLE III. The two parties will jointly take the necessary measures for maintaining the regularity of the market.

ARTICLE IV. From May 1, 1926, the annual sale, outside of Germany, of France, their colonies, mandates, and protectorates, will be divided until an annual sale of 840,000 metric tons of K_2O is reached, in such manner that the Syndicate will receive 70 per cent and the Society 30 per cent.

For any tonnage over an annual sale of 840,000 tons, the Syndicate will receive 50 per cent and the Society 50 per cent. It is, however, agreed that when the sale of 825,000 metric tons of K_2O shall have been attained, the Society shall receive 3,000 metric tons of K_2O, by right of priority, above its fixed quota.

If, in the fourth year of the contract, an annual sale of 840,000 tons of K_2O has not been reached, the Society shall receive for the fifth year of the contract a priority for the delivery of 8,000 tons of K_2O without the 3,000 tons of K_2O provided for in case the tonnage of 825,000 of K_2O should have been attained.

Should the sale of 840,000 tons of K_2O not be attained during the course of the fifth year, it is agreed that in any case, from the beginning of the sixth year, the quantities over the highest annual tonnage reached during the first five years shall be divided in the proportion of 50–50.

ARTICLE V. The two parties have agreed to select, as rapidly as possible, for each country, joint organizations for the development of sales.

ARTICLE VI. The two parties shall mutually communicate, within the three days following each of the 10-day periods, of each month, the amount of the orders received and of deliveries made—either by rail or water—within each 10-day period.

In case one of the parties exceeds its quota of orders in a country, at the end of one of these 10-day periods, a readjustment shall be made, except by contrary agreement, immediately, if possible, or at most not later than two months, by the transfer of a corresponding number of orders to the other party.

In every case an exact readjustment of the participating quotas must be reached before the end of the season, which is also that of the contract year (April 30 of each year).

Only in the case where an exact compensation can not be effected owing to forces beyond control a readjustment of the quotas shall be made, either by a

complementary delivery to be made within a maximum delay of four months or by payment by the party in excess to the party in deficit of a bonus of 15 per cent of the gross-sales prices obtained in the country under discussion.

ARTICLE VII. The selling price for each country shall be fixed by a common agreement between the directing boards of the two parties on the basis of the proposals presented by the managing boards of the sales organizations, which should take into account the actual conditions prevailing in each country at the time.

These prices shall be established, on the one hand, by the taking into consideration cost prices and, on the other hand, in such manner as to allow the development of the use of potash for agriculture and industry in each country.

ARTICLE VIII. The collaboration of the Syndicate and of the Society has as its aim the development of the sale of potash according to the needs of the various countries, the realization of economies in general expenses, and the avoidance of a useless increase in prices for the consumer; the division provided for in an agreement, through a special accord, to effect changes from one country to another if measures of this sort appear to them available from a practical point of view.

ARTICLE IX. A commission of control shall be constituted, composed of members half of whom shall be chosen by each of the two parties.

The members of this commission, who may act, either in common cooperation or separately, shall examine the exactness of the declarations made by the two parties throughout the duration of the present contract, either at the head offices of the companies or at the mines, in the offices, or in any other place.

If certain findings of the commission are not recognized by one of the parties, this latter has the right to demand a new investigation by the two persons chosen outside of the commission, and who, in case of disagreement between themselves, shall have the right to designate a board of arbitration, each of the contracting parties having one of the two members of this board.

The members of the commission of control, as well as the persons designated to proceed with a new investigation, shall have the right to demand the assistance, in their functions, of representatives of the contracting parties.

ARTICLE X. The terms of the present contract replace the previous agreements.

The two parties declare that they desire to conform to this contract in a spirit of loyal and friendly cooperation.

ARTICLE XI. The present contract shall be written in German and in French, and the two texts shall be signed by the two parties.

ARTICLE XII. In case of differences which might arise, either directly or indirectly, from the execution of the present contract, no recourse may be made to the jurisdiction of any ordinary tribunals.

These differences shall be settled by arbitration. Arbitration shall be intrusted to an arbitration committee which shall be composed of two representatives of each party. These four arbitrators shall name a supreme arbitrator, and in the case where they cannot come to an agreement on the choice of this arbitrator. the president of the Arbitration Court of The Hague shall be asked to designate him.

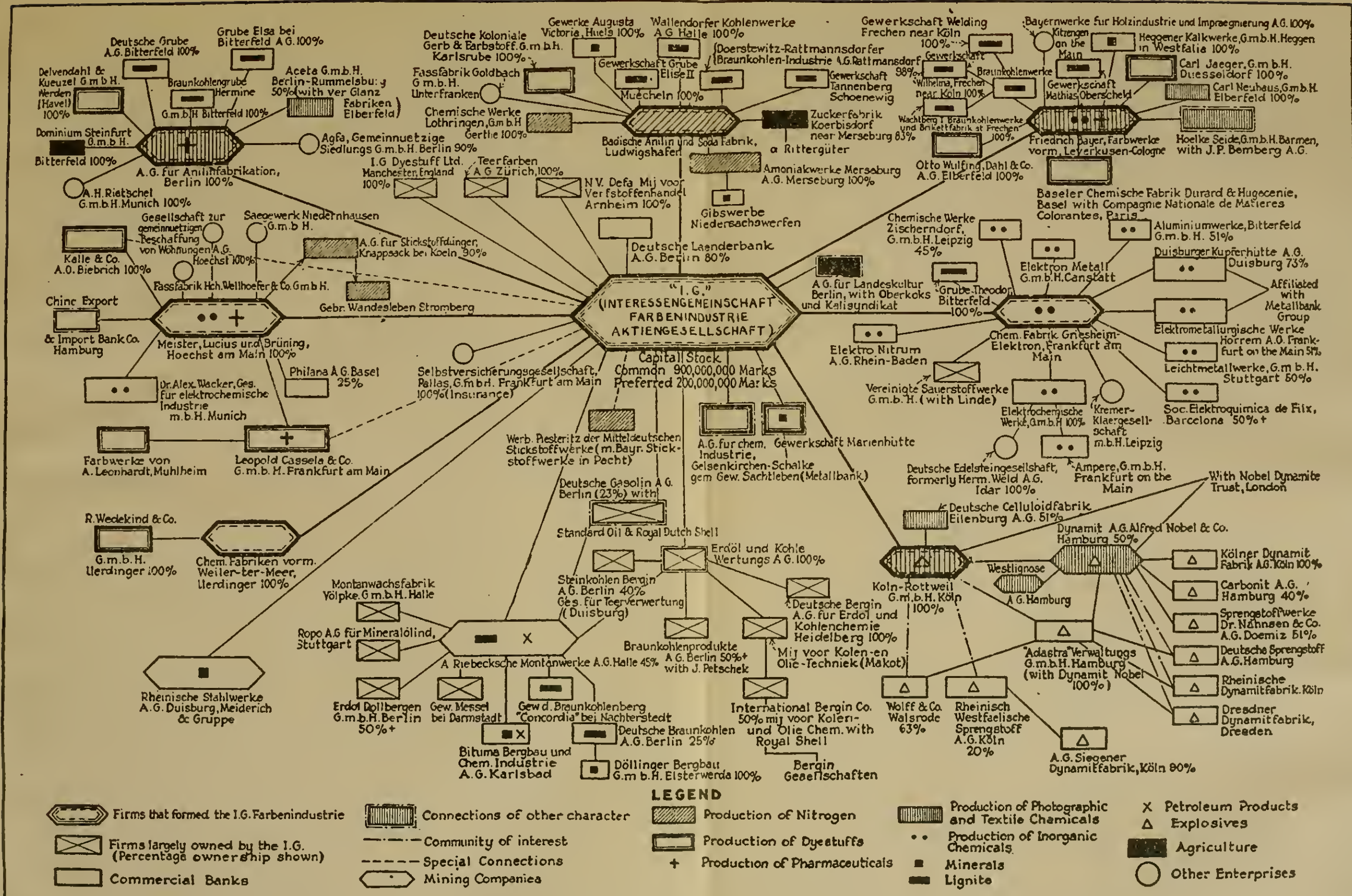
In case of an infraction duly established, the guilty party shall be called upon to pay a fine to the other party, the amount of which shall, at the maximum, be five times the value of the litigation, and in the case of a second offense within the same year, ten times the value of the litigation for which the arbitration has been demanded.

XIII. This contract is made for a duration of 10 years dating from May 1, 1926, with the provision that it may be canceled at the end of the seventh year provided a notice of cancellation has been given one year in advance.

If this contract is not canceled, it shall remain in operation until the tenth year, and if it is not denounced one year before the tenth year, it shall be prolonged by tacit renewal for 5-year periods if a notice of cancellation has not been given one year before the expiration of these periods.

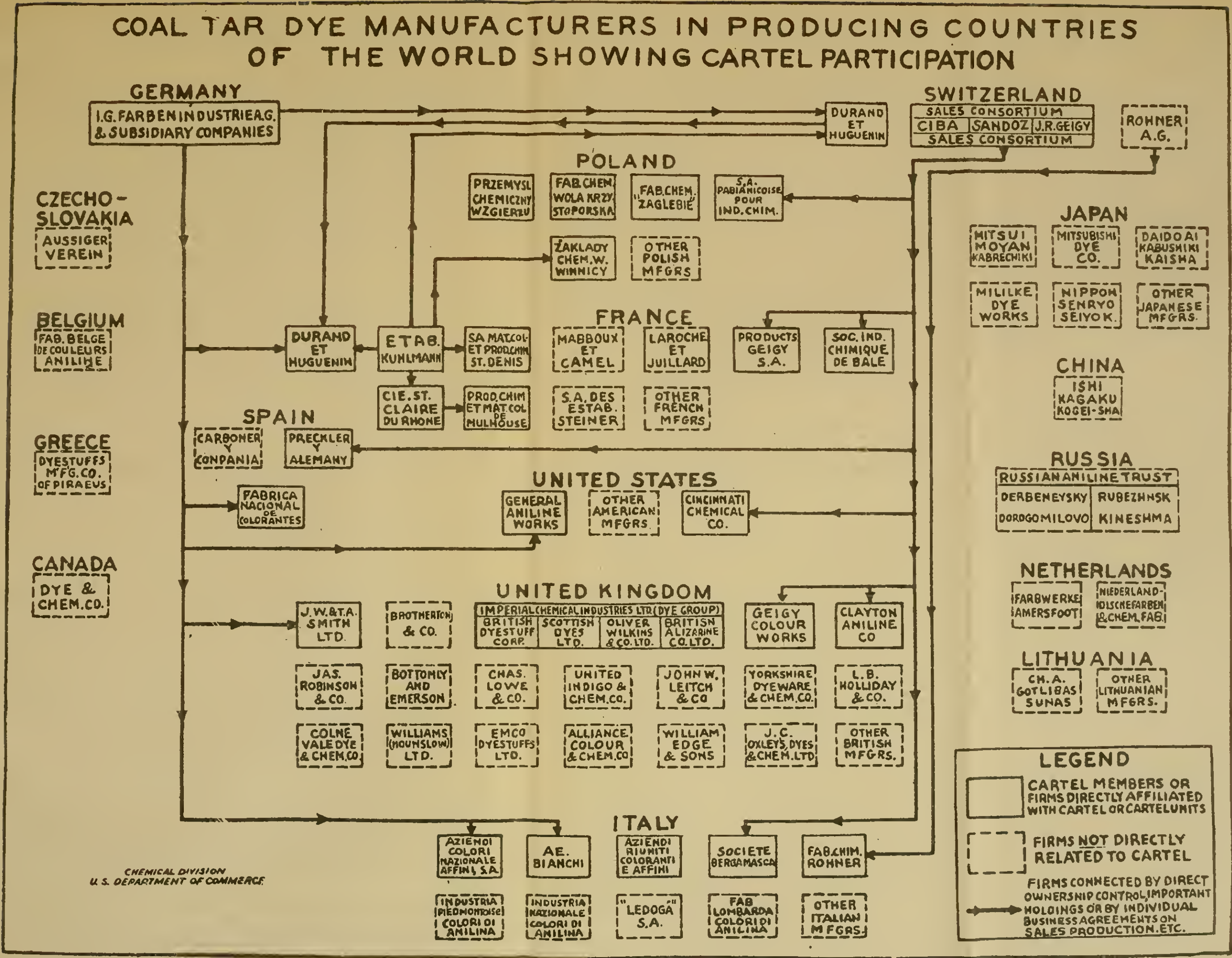
If this contract terminates through denunciation or nonremoval, the compensation between amounts delivered and the quotas agreed upon shall be made in currency, as stated in Article VI.

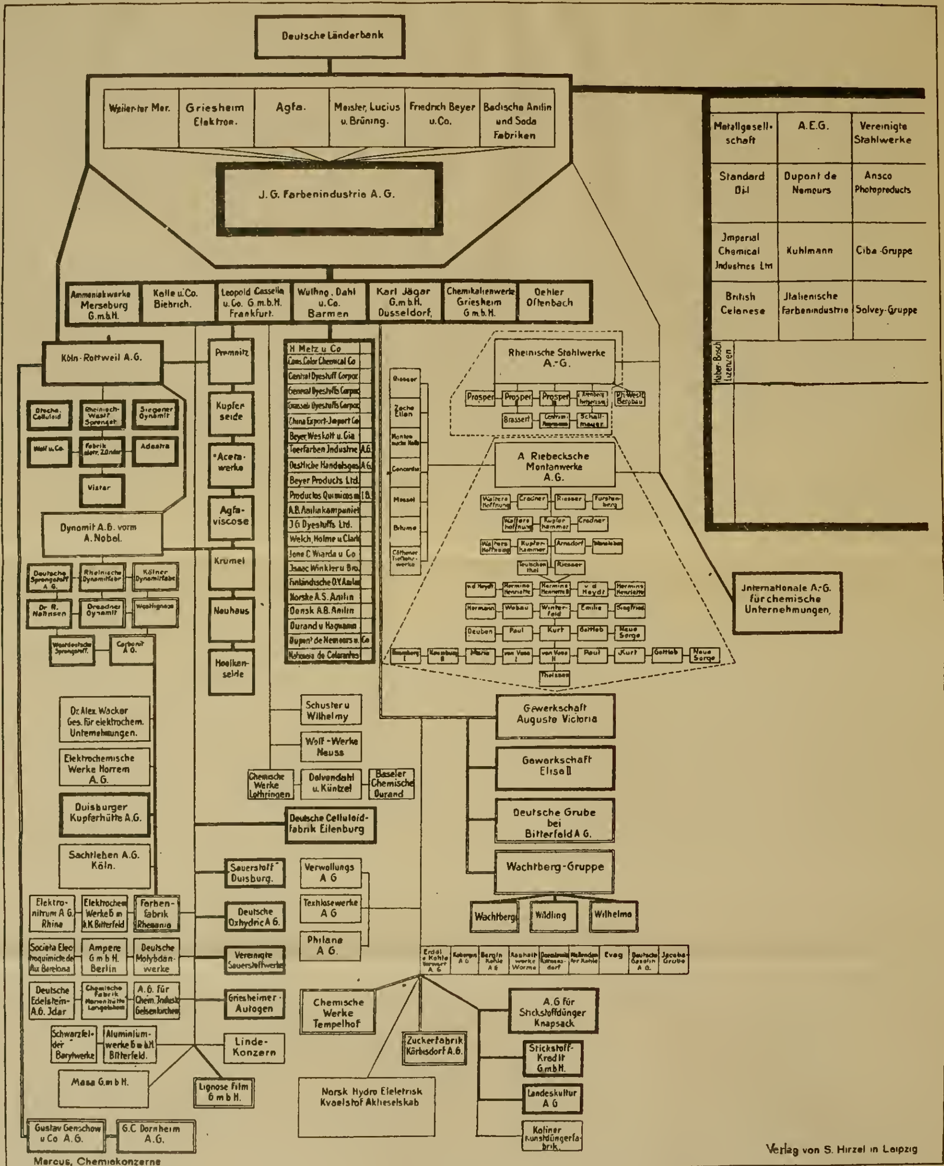
"EXHIBITS NOS. 2083-2087" face this page.



Colossal Structure and Ramifications of the Great German Chemical Combine

The scheme of organization shown here is a modification by *Chem & Met.* of a chart originally a part of an official report made by the Swedish chemical commissioner Ingr. Otto Cyren and published in the *Swensk Kemisk Tidskrift* for June, 1927. Similar organization charts have appeared recently in a number of other European publications, notably the Italian *Giornale di Chimica industriale ed Applicata* and in the French journal, *L'Industrie Chimique.* The figures in the *Chem. & Met.* chart showing the percentage of I.G. ownership are from the Special Circular 181 of the Chemical Division of the U. S. Bureau of Foreign and Domestic Commerce.


COAL TAR DYE MANUFACTURERS IN PRODUCING COUNTRIES OF THE WORLD SHOWING CARTEL PARTICIPATION
GERMANY
I.G. FARBENINDUSTRIE A.G. & SUBSIDIARY COMPANIES
SWITZERLAND
SALES CONSORTIUM
CIBA
SANDOZ
J.R. GEIGY
SALES CONSORTIUM
ROHNER A.G.
DURAND ET HUGUENIN
POLAND
PRZEMYSL CHEMICZNY WZGIERZU
FAB. CHEM. WOLA KRZYSTOPORSKA
"FAB. CHEM. ZAGLEBIE"
S.A. PABIANICOISE POUR IND. CHIM.
ZAKLADY CHEM. W. WINNICY
OTHER POLISH MFGRS
CZECHO-SLOVAKIA
AUSSIGER VEREIN
JAPAN
MITSUI MOYAN KABRECHIKI
MITSUBISHI DYE CO.
DAIDO AI KABUSHIKI KAISHA
MILILKE DYE WORKS
NIPPON SENRYO SEIYOK.
OTHER JAPANESE MFGRS.
BELGIUM
FAB. BELGE DE COULEURS ANILINE
FRANCE
DURAND ET HUGUENIN
ETAB. KUHLMANN
SA MAT. COL. ET PROD. CHIM. ST. DENIS
MABBOUX ET CAMEL
LAROCHE ET JUILLARD
PRODUCTS GEIGY S.A.
SOC. IND. CHIMIQUE DE BALE
CIE. ST. CLAIRE DU RHONE
PROD. CHIM ET MAT. COL DE MULHOUSE
S.A. DES ESTAB. STEINER
OTHER FRENCH MFGRS
CHINA
ISHI KAGAKU KOGEI-SHA
SPAIN
CARBONER Y CONPANIA
PRECKLER Y ALEMANY
FABRICA NACIONAL DE COLORANTES
GREECE
DYESTUFFS M'F'G. CO. OF PIRAEUS
RUSSIA
RUSSIAN ANILINE TRUST
DERBENEYSKY
RUBEZHNSK
DORDGOMILOVO
KINESHMA
UNITED STATES
GENERAL ANILINE WORKS
OTHER AMERICAN MFGRS
CINCINNATI CHEMICAL CO.
CANADA
DYE & CHEM. CO.
NETHERLANDS
FARBWERKE AMERSFOOT
NIEDERLANDSCHE FARBEN & CHEM. FAB.
UNITED KINGDOM
J.W. & T.A. SMITH LTD.
BROTHERTON & CO.
IMPERIAL CHEMICAL INDUSTRIES LTD. (DYE GROUP)
BRITISH DYESTUFF CORP.
SCOTTISH DYES LTD.
OLIVER WILKINS & CO. LTD.
BRITISH ALIZARINE CO. LTD.
GEIGY COLOUR WORKS
CLAYTON ANILINE CO
LITHUANIA
JAS. ROBINSON & CO.
BOTTOMLY AND EMERSON
CHAS. LOWE & CO.
UNITED INDIGO & CHEM. CO.
JOHN W. LEITCH & CO
YORKSHIRE DYEWARE & CHEM. CO.
L.B. HOLLIDAY & CO.
CH.A. GOTLIBAS SUNAS
OTHER LITHUANIAN MFGRS.
COLNE VALE DYE & CHEM. CO
WILLIAMS (HOUNSLOW) LTD.
EMCO DYESTUFFS LTD.
ALLIANCE COLOUR & CHEM. CO
WILLIAM EDGE & SONS
J.C. OXLEY'S DYES & CHEM. LTD
OTHER BRITISH MFGRS.
LEGEND
CARTEL MEMBERS OR FIRMS DIRECTLY AFFILIATED WITH CARTEL OR CARTEL UNITS
FIRMS NOT DIRECTLY RELATED TO CARTEL
FIRMS CONNECTED BY DIRECT OWNERSHIP CONTROL, IMPORTANT HOLDINGS OR BY INDIVIDUAL BUSINESS AGREEMENTS ON SALES PRODUCTION, ETC.
ITALY
AZIENDI COLORI NAZIONALE AFFINI, S.A.
AE. BIANCHI
AZIENDI RIUNITI COLORANTI E AFFINI
SOCIETE BERGAMASCA
FAB. CHIM. ROHNER
INDUSTRIA PIEDMONTOISE COLORI DI ANILINA
INDUSTRIA NAZIONALE COLORI DI ANILINA
"LEDOGA" S.A.
FAB. LOMBARDA COLORI DI ANILINA
OTHER ITALIAN MFGRS.
CHEMICAL DIVISION
U.S. DEPARTMENT OF COMMERCE


Deutsche Länderbank
Weiler-ter Mer.
Griesheim Elektron.
Agfa.
Meister, Lucius u. Brüning.
Friedrich Beyer u. Co.
Badische Anilin und Soda Fabriken
J. G. Farbenindustrie A. G.
Metallgesellschaft
A.E.G.
Vereinigte Stahlwerke
Standard Oil
Dupont de Nemours
Ansco Photoproducts
Imperial Chemical Industries Ltd
Kuhlmann
Ciba-Gruppe
British Celanese
Italienische Farbenindustrie
Solvey-Gruppe
Haber-Bosch Lizenzen
Ammoniakwerke Merseburg G.m.b.H.
Kalle u. Co. Biebrich.
Leopold Cassella u. Co. G.m.b.H. Frankfurt.
Wulfing, Dahl u. Co. Barmen
Karl Jäger G.m.b.H. Dusseldorf.
Chemikalienwerke Griesheim G.m.b.H.
Oehler Offenbach
Köln-Rottweil A.G.
Siegener Dynamit
Adeatra
Vistar
Dynamit A.G. vorm A. Nobel.
Kölner Dynamitfabr.
Carbonit A.G.
Premnitz
Kupferseide
Aceta-werke
Agfa-viscose
Krumel
Neuhaus
Hoelkenseide
H Metz u. Co
Central Dyestuff Corpor.
General Dyestuffs Corpor.
China Export-Import Co
Beyer Weskott u. Gia
Teerfarben Industrie A.G.
Beyer Products Ltd.
A.B. Anilinkompaniet
J G Dyestuffs Ltd.
Welch, Holme u. Clark
Jone C Wiarda u. Co
Jsaac Winkler u. Bro.
Norske A.S. Anilin
Dansk A.B. Anilin
Durand u Huguenin
Dupont de Nemours u. Co
Rheinische Stahlwerke A.-G.
Prosper
Brassert
A. Riebecksche Montanwerke A.G.
Internationale A.-G. für chemische Unternehmungen,
Gewerkschaft Auguste Victoria
Gewerkschaft Elise II
Deutsche Grube bei Bitterfeld A G.
Wachtberg-Gruppe
Wachtberg
Wildling
Wilhelma
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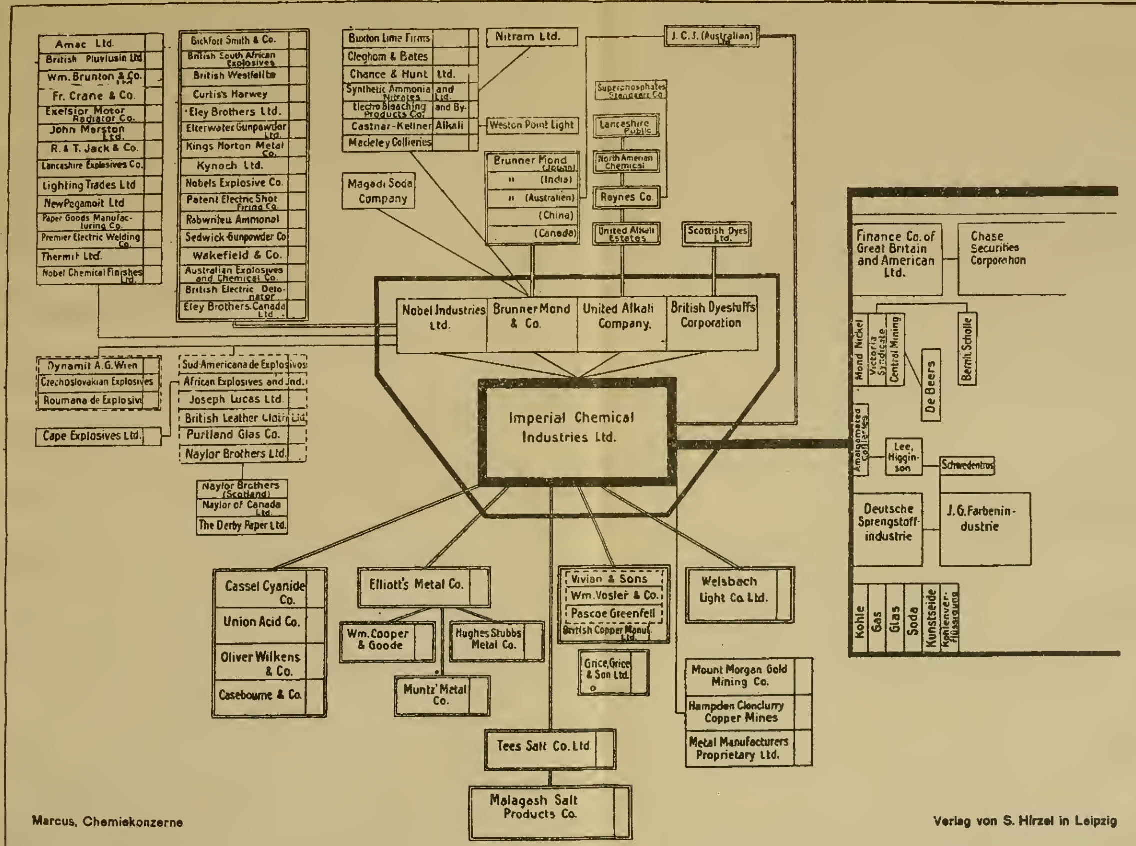
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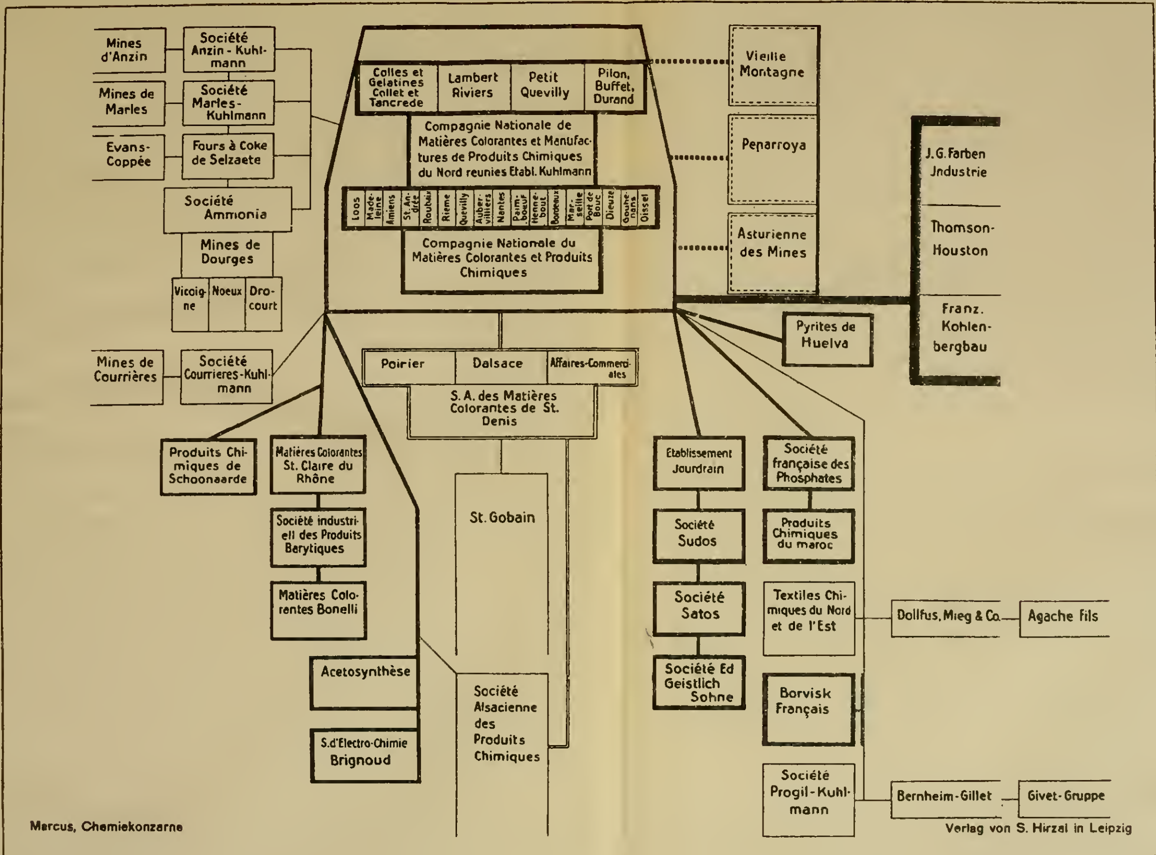
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EXHIBIT No. 2088

Principal copper producers and the disposition of their copper

UNITED STATES

Company	Where Smelted	Where Refined	Sold by
American Smelting & Refining Co.	Own plants.	Own refineries.	Amer. Sm. & Ref. Co.
Anaconda Copper Mining Co.	Anaconda, Anaconda, Mont.	Anaconda, Great Falls	Anaconda Sales Co.
Calumet & Hecla Cons. Copper Co.	Calumet & Hecla, Hubbell, Mich.	Calumet & Hecla, Hubbell, Mich.	Calumet & Hecla Cons.
Champion Copper Co.	Copper Range Co., Smelting Dept., Houghton, Mich.	Copper Range Co., Smelting Dept., Houghton, Mich.	Copper Range Co.
Consolidated Coppermines Corpn.	Kennecott Copper Corpn. (Nevada plant)	American Metal Co., Carteret	Consolidated Coppermines Corpn.
Copper Range Co.	Copper Range Co., Smelting Dept., Houghton, Mich.	Copper Range Co., Smelting Dept., Houghton, Mich.	Copper Range Co.
Howe Sound (Chelan Div.).	Amer. Sm. & Ref., Tacoma	Amer. Sm. & Ref., Tacoma	Amer. Sm. & Ref. Co.
Inspiration Consolidated Copper Co.	Part to Internat. Sm., Miami, Ariz.	Own plant, Inspiration, Ariz., and Raritan Copper Wks.	Anaconda Sales Co.
Kennecott Copper Corpn. (Ray and Chino Mines)	(1)	Amer. Sm. & Ref., Baltimore, Md.	Kennecott Sales Corpn.
Kennecott Copper Corpn. (Utah Mines).	Amer. Sm. & Ref., Garfield, Utah	Amer. Sm. & Ref., Baltimore, Md.	Kennecott Sales Corpn.
Magma Copper Co.	Magma, Superior, Ariz.	Phelps Dodge Ref. Corpn.	Magma Copper Sales Corpn.
Miami Copper Co.	Internat. Sm., Miami, Ariz., and Phelps Dodge, Douglas, Ariz.	Raritan Copper Wks. and Phelps Dodge Ref. Corpn.	Adolph Lewisohn & Sons Inc.
Mountain City Copper Co.	Internat. Sm., Tooele, Utah	Raritan Copper Wks.	Anaconda Sales Co.
National Tunnel & Mines.	Internat. Sm., Tooele, Utah	Raritan Copper Wks.	Anaconda Sales Co.
North Butte Mining Co.	Anaconda, Anaconda, Mont.	Anaconda, Great Falls	Anaconda Sales Co.
Ohio Copper Co.	Amer. Sm. & Ref., Garfield, Utah	Amer. Sm. & Ref., Barber, N. J.	Amer. Sm. & Ref. Co.
Phelps Dodge Corpn.	Own plants, Douglas, Clifton, and Clarkdale, Ariz.	Phelps Dodge Ref. Corpn	Phelps Dodge Corpn.
Quincy Mining Co.	Quincy Sm. Wks., Hancock, Mich. (*b*)	Quincy Sm. Wks., Hancock, Mich. (*b*)	Quincy Mining Co.
Shattuck Denn Mining Corpn.	Phelps Dodge Corpn. Douglas, and Amer. Sm. & Ref., El Paso.	Phelps Dodge Ref. Corpn. and Amer. Sm. & Ref.	Shattuck Denn Mining Corpn.
Tennessee Copper Co.	Tennessee, Copperhill, Tenn.	Phelps Dodge Ref. Corpn.	Adolph Lewisohn & Sons, Inc.
Walker Mining Co.	International Sm., Tooele, Utah	Raritan Copper Wks.	Anaconda Sales Co.

CANADA

Company	Where Smelted	Where Refined	Sold by
Consolidated Copper & Sulphur Co.	Phelps Dodge Ref. Corpn.	Phelps Dodge Ref. Corpn.	Phelps Dodge Ref. Corpn.
Falconbridge Nickel Mines, Ltd.	Own plant, Falconbridge, Ont.	Falconbridge Nikkelvert, A/S, Norway	Brandois, Goldschmidt & Co., London, Eng.
Hudson Bay Mining & Smelting Co., Ltd.	Own plant, Flin Flon, Manitoba	Canadian Copper Refiners, Ltd.	British Metal Corpn.
Noranda Mines, Ltd.	Own plant, Noranda, Que.	Canadian Copper Refiners, Ltd.	British Metal Corpn.
Normetal Mining Corpn.	Noranda Mines, Ltd.	Canadian Copper Refiners, Ltd.	
Britannia Mining & Smelting Co.	Amer. Sm. & Ref., Tacoma, Wash.	Amer. Sm. & Ref., Tacoma, Wash.	Amer. Sm. & Ref. Co.
Granby Cons. Mining Smelting & Power Co.	Japan.	Japan.	Granby Cons. M., S. & P. Co.
International Nickel Co. of Canada, Ltd.	Own plants, Copper Cliff, and Coniston, Ont.	Ontario Ref. Co., Ltd.	American Metal Co. of Canada, Ltd.
Sherritt Gordon Mines, Ltd.	Hudson Bay Min. & Sm.	Ontario Ref. Co., Ltd.	Cons. Min. & Sm. Co.
Waite Amulet Mines, Ltd.	Noranda Mines, Ltd.	Canadian Copper Refiners, Ltd.	British Metal Corpn.

[1] Nevada ores are treated at McGill, Nev., and Ray ores at Hayden, Ariz. Chino ores have been treated at El Paso, Tex., but a new smelter at Hurley, N. M., will come into operation in 1939. (*b*) In 1937 and 1938 treated at Copper Range smelting works.

Principal copper producers and the disposition of their copper—Continued.

MEXICO

Company	Where Smelted	Where Refined	Sold by
Cie. du Boleo	Boleo, Santa Rosalia, Baja Calif.	Amer. Sm. & Ref. Co., Tacoma.	Amer. Sm. & Ref. Co.
Cananea Cons. Copper Co.	Own plant, Cananea, Son.	Raritan Copper Wks.	Anaconda Sales Co.
Moctesuma Copper Co.	Phelps Dodge, Copper Queen Br., Douglas, Ariz.	Phelps Dodge Ref. Corpn.	Phelps Dodge Corpn.

OTHER FOREIGN COUNTRIES

Company	Where Smelted	Where Refined	Sold by
Andes Copper Mining Co.	Own plant, Potrerillos, Chile.	Raritan Copper Wks. and own plant in Chile.	Anaconda Sales Co.
Braden Copper Co.	Own plant, Caletones, Chile.	Own plant in Chile.	Kennecott Sales Corpn.
Cerro de Pasco Copper Corpn.	Own plant, Oroya, Peru.	American Metal Co., Carteret.	American Metal Co.
Chile Exploration Co.		Own plant, Chuquicamata.	Anaconda Sales Co.
Union Min. du Haut Katanga.	Own plant, Belg. Congo.	Own plants, Oolen, Belgium, and Belgian Congo.	Soc. Gen. des Minerais.
Matahambre Mines	American Metal Co., Carteret.	American Metal Co., Carteret.	American Metal Co.
Mufulira Copper Mines Ltd.	Own plant, Rhodesia	Shipped as blister	Anglo Metal Co., Ltd.
Rhokana Corpn.	Own plant, Rhodesia	Own plant, Rhodesia	Anglo Metal Co., Ltd.
Roan Antelope Copper Mines	Own plant, Rhodesia	British Copper Refiners (part)	Anglo Metal Co., Ltd. and British Copper Refiners.
Otavi Mines & Railway Co.	Own plant, Africa; Hoboken, Belg.; and Norddeutsche.	Various.	Soc. Gen. des Minerais, and Metallgesellschaft.

Source: Year Book of the American Bureau of Metal Statistics, 1938, p. 20.

Exhibit No. 2089

United States production of primary and secondary copper, 1912–1938

[Amount in short tons]

Year	Total	Primary copper [1]		Secondary copper [2]					
				Total		Copper as metal		Copper in alloys	
		Amount	Percent of total	Amount	Percent of total	Amount	Percent of total	Amount	Percent of total
1912	739,338	601,838	81.4	137,500	18.6				
1913	754,912	618,412	81.9	136,500	18.1				
1914	733,211	605,211	82.5	128,000	17.5				
1915	889,853	693,853	78.0	196,000	22.0				
1916	1,294,376	944,376	73.0	350,000	27.0				
1917	1,280,615	936,773	73.2	343,842	26.8	88,442	6.9	255,400	19.9
1918	1,294,107	941,437	72.7	352,670	27.3	88,130	6.8	264,540	20.5
1919	1,003,933	716,743	71.4	287,190	28.6	83,730	8.3	203,460	20.3
1920	903,672	591,212	65.4	312,460	34.6	97,000	10.7	215,460	23.9
1921	522,007	304,707	58.4	217,300	41.6	99,020	19.0	118,280	22.6
1922	788,235	452,335	57.4	335,900	42.6	113,400	14.4	222,500	28.2
1923	1,142,984	732,084	64.1	410,900	35.9	141,300	12.4	269,600	23.5
1924	1,225,407	837,107	68.3	388,300	31.7	141,500	11.6	246,800	20.1
1925	1,261,658	841,448	66.7	420,210	33.3	183,700	14.6	236,510	18.7
1926	1,345,449	865,649	64.3	479,800	35.7	200,100	14.9	279,700	20.8
1927	1,349,676	859,476	63.7	490,200	36.3	201,000	14.9	289,200	21.4
1928	1,432,299	895,899	62.5	536,400	37.5	230,000	16.1	306,400	21.4
1929	1,617,916	991,366	61.3	626,550	38.7	297,600	18.4	328,950	20.3
1930	1,162,812	695,612	59.8	467,200	40.2	244,800	21.1	222,400	19.1
1931	884,303	537,303	60.8	347,000	39.2	188,300	21.3	158,700	17.9
1932	470,719	222,539	47.3	248,180	52.7	140,500	29.8	107,680	22.9
1933	578,769	240,669	41.6	338,100	58.4	193,100	33.4	145,000	25.0
1934	610,429	233,029	38.2	377,400	61.8	220,400	36.1	157,000	25.7
1935	787,221	338,321	43.0	448,900	57.0	270,000	34.3	178,900	22.7
1936	1,130,062	645,462	57.1	484,600	42.9	260,000	23.0	224,600	19.9
1937	1,354,353	822,253	60.7	532,100	39.3	285,600	21.1	246,500	18.2
1938	912,374	552,574	60.6	359,800	39.4	192,400	21.1	167,400	18.3

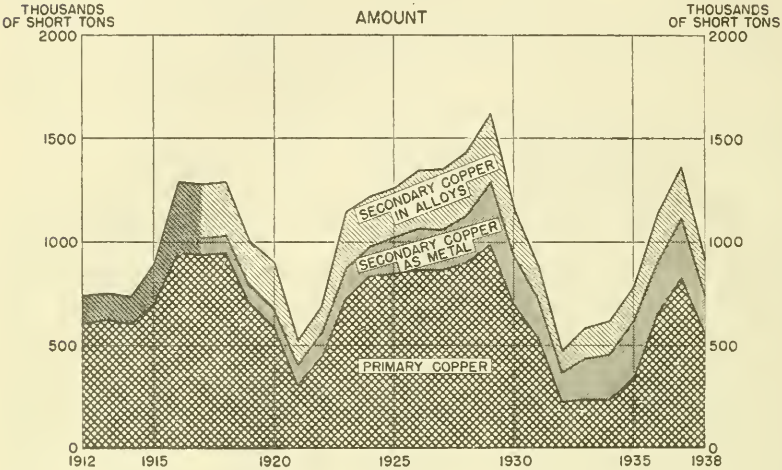
[1] Refinery output from domestic ores.
[2] Material recovered from remelting old copper and copper scrap and from the treatment of alloys with or without separation of the copper.

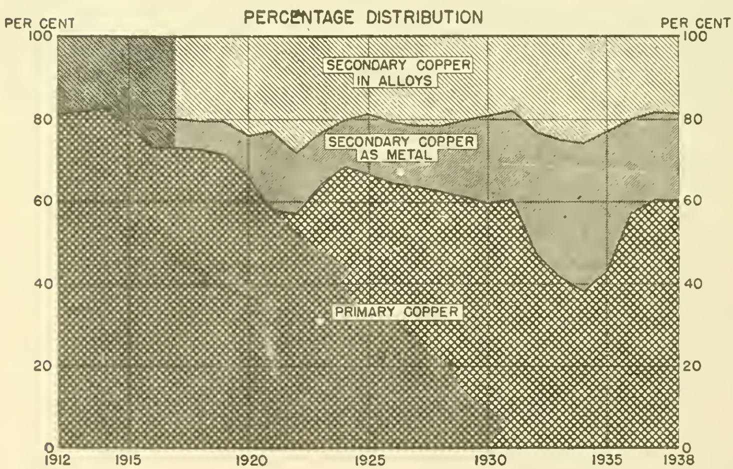
Source: Compiled by the staff of the T. N. E. C. from figures of the United States Bureau of Mines.

Chart based on the above data appears on the following page.

UNITED STATES PRODUCTION OF PRIMARY AND SECONDARY COPPER

1912-1938





SOURCE: COMPILED BY THE STAFF OF THE T. N. E. C. FROM FIGURES OF THE UNITED STATES BUREAU OF MINES

Exhibit No. 2090

Anaconda Copper Mining Company—Principal Subsidiaries Classified According to Major Function, 1937 (Inc. 1895, Montana)

Function [1] and parent company or subsidiary	Domestic	Foreign	Year control acquired	Per cent of stock owned [2]
Mining, smelting, and refining:				
International Smelting & Refining Co	X		1914	100.0
National Tunnel & Mines Co	X			50.0
Mountain City Copper Co	X		1932	61.66
Walker Mining Co	X		1918	50.42
North Lily Mining Co	X		1924	53.04
Butte Copper & Zinc Co	X		1915	[3] 11.6
Mines Investment Corp.[4]	X			100.0
Inspiration Consolidated Copper Co.[5]	X			28.17
Chile Copper Co		Chile	1923	98.5
Chile Exploration Co		Chile	1923	100.0
Greene Cananea Copper Co		Mexico	1929	98.34
Cananea Consolidated Copper Co., S. A		Mexico	1929	99.97
Andes Exploration Co. of Maine		Peru	1916	100.0
Santiago Mining Co		Chile	1917	[6] 78.51
Andes Copper Mining Co		Chile	1916	97.77
Selling agencies:				
Anaconda Sales Co	X		1934	100.0
Copper Export Association, Inc	X			100.0
Fabricators:				
Anaconda Wire & Cable Co	X		1929	66.78
Anaconda Wire & Cable Co. of California	X		1929	100.0
American Brass Co.	X		1922	100.0
American Brass Co. of Illinois	X			100.0
Anaconda-American Brass, Ltd		Canada	1922	100.0

[1] Excluding miscellaneous services.
[2] Owned by parent company and/or its subsidiaries.
[3] Operated under lease.
[4] Investment company.
[5] Affiliate.
[6] Anaconda Copper Mining Company owns 20.7 per cent of stock.

Source: *Moody's Industrials, 1938*, and Securities Registration Statement filed with Securities and Exchange Commission.

Exhibit No. 2091

Kennecott Copper Corporation—Principal Subsidiaries Classified According to Major Function, 1937 (Inc. 1915, New York)

Function [1] and parent company or subsidiary	Domestic	Foreign	Year control acquired	Percent of stock owned [2]
Mining, smelting and refining:				
Mines Products Corp	X			100.0
Nevada Consolidated Corp	X		1932	100.0
Alaska Development & Mineral Co	X			100.0
Utah Copper Co	X		1924	100.0
Braden Copper Co		Chile		100.0
Selling agency: Kennecott Sales Corporation	X		1934	100.0
Fabricators:				
Chase Brass & Copper Co. Inc	X		1929	100.0
Kennecott Wire & Cable Co	X		1935	100.0
Superior Wire Cloth Co	X			66.7
Great Brook Mfg. Co	X			66.7
Garfield Chemical & Mfg. Co	X			50.0
Copper Houses, Inc	X		1935	100.0

[1] Excluding miscellaneous services.
[2] Owned by parent company and/or its subsidiaries.

Source: *Moody's Industrials, 1938*, and Securities Registration Statement filed with Securities and Exchange Commission.

EXHIBIT No. 2092

American Smelting & Refining Co.—Principal Subsidiaries Classified According to Major Function, 1937 (Inc. 1899, New Jersey)

Function [1] and parent company or subsidiary	Domestic	Foreign	Year control acquired	Per cent of stock owned [2]
Mining, smelting, and refining:				
Alice Mining Corp	X			68.6
Alta Mining & Development Co	X			60.8
Federal Mining & Smelting Co	X		1905	51.6
Green Hill Cleveland Mining Co	X		1912	50.0
Hidden Treasure Mining Co	X		1922	56.9
Wyoming Mining & Milling Co	X		Prior to 1910	84.9
Black Hawk Mining & Development Co. Ltd		Canada		98.6
Dome Mountain Gold Co. Ltd		Canada		51.0
Fairview Mining Co. Ltd		Canada		51.0
Government Gulch Mining Co. Ltd		Canada	1910	61.1
Great Western Smelting & Refining Co. (inactive)	X			100.0
Buchans Mining Co. Ltd		Newfoundland	1927	97.0
Compania American Smelting, S. A		Chile		100.0
Compania American Smelting Boliviana Limitada, S. A.		Bolivia		100.0
Compania Carbonifera de Sabinas, S. A		Mexico		99.9
Compania de Combustibles "Agujita," S. A		Mexico		99.9
Compania Minera Asarco, S. A		Mexico		100.0
Compania de Terrenas de San Luis Potosi, S. A.		Mexico		[3] 27.9
Compania Minera La Ventura, S. A		Mexico		100.0
Compania Minera Nacional, S. A		Mexico		100.0
Compania de Terrenas de San Luis Potosi, S. A.		Mexico		[3] 0.7
Compania de Terrenas de San Luis Potosi, S. A		Mexico		[3] 71.4
Compania Minera Tepic, S. A		Mexico		100.0
Northern Peru Mining & Smelting Co		Peru		99.0
Sociedad Minera Milluachaqui, Ltda		Peru		52.0
Compania Metalurgica Mexicana		Mexico		60.0
Compania Minera La Loteria, S. A		Mexico		100.0
Mexican Lead Co		Mexico		90.1
Mexican Smelting & Refining Co		Mexico		100.0
Montezuma Lead Co		Mexico		99.7
Sombrerete Mining Co		Mexico		100.0
La Descubridora Mining Co		Mexico		99.8
Minas de la Alianza, S. A		Mexico		100.0
Mexican Zinc Co., S. A		Mexico		100.0
Consolidacion Minera de Parral, S. A		Mexico		100.0
Negociacion Minera de Jesus Maria, S. A		Mexico		77.1
Rawley Mines, Inc	X		1923	60.0
Union Smelting & Refining Co. (inactive)	X			100.0
Yankee Mines Co	X		1929	96.7
International Metal Co	X			100.0
Kildun Mining Corp	X			[4] 38.4
Fabricators:				
Fisher Brass, Inc	X			56.1
Garfield Chemical & Manufacturing Corp	X			50.0
Revere Copper & Brass Inc	X			(4) (5)
General Cable Corp	X			(4) (6)

1 Excluding miscellaneous services.
2 Owned by parent company and/or its subsidiaries.
3 American Smelting and Refining Co. owns 100% of stock, but ownership is distributed among parent company and two subsidiaries as indicated.
4 The following statement is quoted from the Securities Registration Statement filed with the Securities and Exchange Commission: "The registrant claims that it does not have 'the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of' [General Cable, Revere Copper & Brass, Kildun] 'through ownership of voting securities, by contract or otherwise,' and the registrant disclaims any admission of the actual existence of effective control of [same companies] or of its management or policies."
5 As of December 31, 1937, American Smelting owned the following stock of Revere Copper & Brass, Inc.: 30.31% Cumulative Preferred, 21.44% Class A, and 39.04% common. In addition, General Cable Corp. owned 16.22% Common and 24.34% Class A of Revere Copper & Brass.
6 As of December 31, 1937, American Smelting owned the following stock of General Cable Corp.: 8.21% Cumulative Preferred, 41.48% Class A, and 45.84% Common.

EXHIBIT NO. 2093

Phelps Dodge Corporation—Principal Subsidiaries Classified According to Major Function, 1937 (Inc. 1885 New York)

Function [1] and parent company or subsidiary	Domestic	Foreign	Year control acquired	Percent of stock owned [2]
Mining, smelting, and refining:				
Nichols Copper Co	X		1930	100.0
Bunker Hill Mines Co. (inactive)	X			100.0
Moctezuma Copper Co		Mexico		100.0
Moctezuma Copper Co. of Mexico, S. A		Mexico		100.0
Fabricators:				
Phelps-Dodge Copper Products Corp	X		1927	100.0
Habirshaw Cable & Wire Corp	X			100.0
American Tube Works	X		1935	100.0

[1] Excluding miscellaneous services.
[2] Owned by parent company and/or its subsidiaries.

Source: *Moody's Industrials, 1938,* and Securities Registration Statement filed with Securities and Exchange Commission.

EXHIBIT NO. 2094

The American Metal Co. Ltd.—Principal Subsidiaries Classified According to Major Function, 1937 (Inc. 1887 New York)

Function [1] and parent company or subsidiary	Domestic	Foreign	Year control acquired	Percent of stock owned [2]
Mining, smelting, and refining:				
United States Metals Refining Co	X		1919	95.48
American Zinc & Chemical Co	X			100.00
American Metal Co. of Colorado	X			100.00
American Metal Co. Ltd. of Illinois	X			100.00
American Metal Co. Ltd. of Michigan	X			100.00
American Metal Co. of New Mexico	X			51.00
American Metal Co. of Texas	X		1928	100.00
Blackwell Zinc Co., Inc	X			100.00
Chanute Spelter Co	X			100.00
Compania Minera de Penoles, S. A		Mexico		95.46
Compania Metalurgica de Torreon, S. A		Mexico		97.00
Compania Restauradora del Mineral de Vetagrande (inactive).		Mexico		96.04
Compania Beneficiadora del Norte, S. S. (inactive)		Mexico		50.00
Compania Minera 'La Parrena,' S. A		Mexico		50.50
Compania Metalurgica Penoles, S. A		Mexico		75.00
Compania Minera 'La Campana', S. A		Mexico		100.00
American Metal Co. of Mexico		Mexico		100.00
Rhodesion Selection Trust Ltd		England		[3] 50.57
Mufulira Copper Mines, Ltd		South Africa		64.07
Minas de Matahombre, S. A		Cuba		58.94
Selling agencies:				
American Metal Co. of Canada, Ltd		Canada		100.00

[1] Excluding miscellaneous services.
[2] Owned by parent company and/or its subsidiaries.
[3] Holding company.

Source: *Moody's Industrials, 1938* and Securities Registration Statement filed with Securities and Exchange Commission.

EXHIBIT NO. 2095

Concentration of Mine Production of Copper in the United States,[1] Selected Years, 1915–1937

[Amount in short tons]

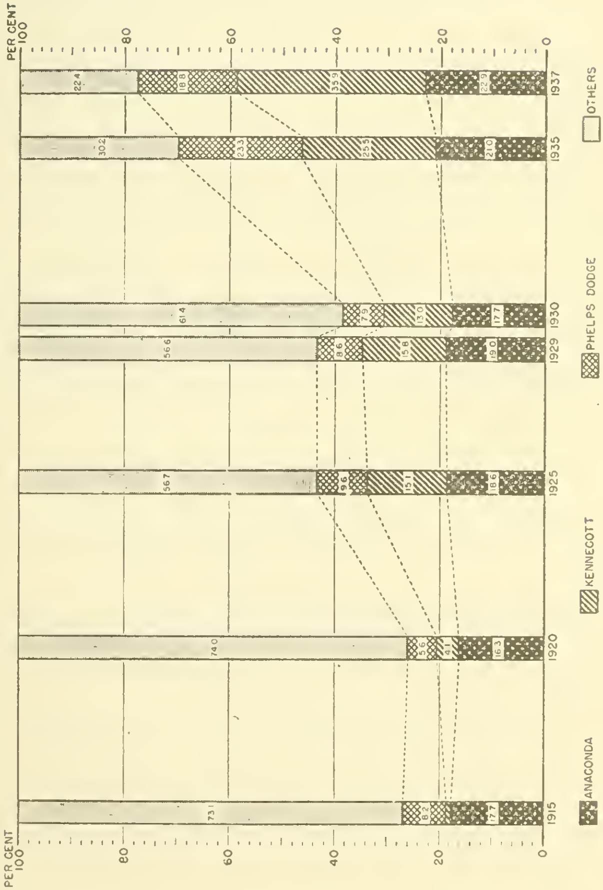
Company [2]	1915 Amount	1915 Percent	1920 Amount	1920 Percent	1925 Amount	1925 Percent	1929 Amount	1929 Percent	1930 Amount	1930 Percent	1935 Amount	1935 Percent	1937 Amount	1937 Percent
Total United States production [3]	712,126	100.00	635,248	100.00	854,000	100.00	1,026,348	100.00	710,690	100.00	380,100	100.00	834,835	100.00
Sixteen largest companies (1915) [4]	585,610	82.23	477,128	75.11	663,345	77.68	835,801	81.43	544,875	76.67	316,872	83.37	730,269	87.47
Anaconda [5]	126,000	17.69	103,822	16.34	158,974	18.62	194,623	18.96	125,593	17.67	79,779	20.99	191,084	22.89
Utah Copper (Kennecott, 1924)	74,199	10.42	50,949	8.02	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
Calumet & Hecla and subsidiaries	70,494	9.90	50,749	7.99	50,375	5.90	67,347	6.56	58,199	8.19	28,280	7.44	37,137	4.45
Phelps Dodge	58,687	8.24	35,380	5.57	82,104	9.61	88,590	8.63	56,479	7.95	[6] 88,438	23.27	[6] 157,224	18.83
Chino (Ray, 1924)	32,444	4.55	22,026	3.47	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
Calumet & Arizona (Phelps Dodge, 1931)	31,563	4.43	21,215	3.34	22,279	2.61	63,570	6.20	43,690	6.15	--------	--------	--------	--------
Nevada Consolidated (Kennecott, 1932)	31,363	4.40	24,146	3.80	36,827	4.31	133,137	12.97	70,990	9.99	--------	--------	--------	--------
Ray Consolidated (Nevada Cons., 1926)	30,169	4.24	23,531	3.70	71,038	8.32	--------	--------	--------	--------	--------	--------	--------	--------
Copper Range	26,870	3.77	11,878	1.87	11,639	1.36	12,099	1.18	11,900	1.67	8,380	2.21	8,066	.97
United Verde (Phelps Dodge, 1935)	22,564	3.17	32,476	5.11	54,073	6.33	71,145	6.93	35,360	4.97	--------	--------	--------	--------
Miami	20,916	2.94	27,791	4.38	25,926	3.04	29,421	2.87	33,562	4.72	14,870	3.91	35,269	4.22
Arizona Copper (Phelps Dodge, 1921)	[7] 18,708	2.63	17,625	2.77	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------
Old Dominion	13,868	1.95	11,427	1.80	13,642	1.60	9,472	.92	8,798	1.24	--------	--------	--------	--------
Quincy	11,027	1.55	9,608	1.51	7,179	.84	2,230	.22	5,470	.77	--------	--------	2,122	.25
North Butte	9,618	1.35	8,288	1.31	800	.09	1,763	.17	2,770	.39	--------	--------	--------	--------
Kennecott	[8] 7,120	1.00	26,217	4.13	128,489	15.05	162,404	15.82	92,064	12.96	97,125	25.55	299,367	35.86
All others [9]	126,516	17.77	158,120	24.89	190,655	22.32	190,547	18.57	165,815	23.33	63,228	16.63	104,566	12.53

[1] Including Alaska.
[2] Showing year control passed to specified parent company. Production figures after that year are consolidated with parent company.
[3] Based so far as possible on blister copper, with exclusion of copper derived from junk, as given by the American Bureau of Metal Statistics.
[4] Production as given by the American Bureau of Metal Statistics.
[5] Including Inspiration since 1915.
[6] Includes copper produced from purchased ores, and, beginning 1937, production from Moctezuma in Mexico.
[7] Fiscal year ended September 30.
[8] 1915 production by Kennecott Mines Co. before it was taken over by Kennecott Copper Corp.
[9] Difference between total United States and 16 largest companies.

Source: Production of individual companies from American Bureau of Metal Statistics. Dates of transfer of control from *Moody's Industrials*, and *Mines Register*.

CONCENTRATION OF PRODUCTION[a] OF COPPER AMONG THREE COMPANIES IN THE UNITED STATES

SELECTED YEARS, 1915-1937



SOURCE: Prepared by the staff of the T N E C from figures of the American Bureau of Metal Statistics

a/ Mine output

Exhibit No. 2096

Principal Sellers of Copper in the United States

Selling Agent	Address	Sells Copper for
American Metal Co., Ltd.	61 Broadway, New York City	Cerro de Pasco Copper Corpn. Matahambre Mines Various
American Smelting & Refining Co.	120 Broadway, New York City	American Smelting & Refining Co. Britannia Mining & Smelting Co. Compagnie du Boleo Corocoro United Copper Mines Howe Sound Co. (Chelan Div.) Various
Anaconda Sales Co.	25 Broadway, New York City	Anaconda Copper Mining Co. Andes Copper Mining Co. Cananea Consolidated Copper Co. Chile Copper Co. Inspiration Consolidated Copper Co. Mountain City Copper Co. North Butte Mining Co. National Tunnel and Mines Co. Walker Mining Co.
Calumet & Hecla Cons. Copper Co.	25 Broadway, New York City	Calumet & Hecla Cons. Copper Co.
Consolidated Coppermines Corpn.	120 Broadway, New York City	Consolidated Coppermines Corpn.
Copper Range Co.	52 Broadway, New York City	Champion Copper Co. Copper Range Co.
Kennecott Sales Corpn.	120 Broadway, New York City	Kennecott Copper Corpn. Braden Copper Co.
Adolph Lewisohn & Sons, Inc.	61 Broadway, New York City	Miami Copper Co. Tennessee Copper Co.
Magma Copper Sales Corpn.	14 Wall St., New York City	Magma Copper Co.
Phelps Dodge Corpn. and Phelps Dodge Refining Corp.	40 Wall St., New York City	Phelps Dodge Corpn. and subsidiary companies Consolidated Copper & Sulphur Co.
Quincy Mining Co.	52 Broadway, New York City	Quincy Mining Co.

Source: Year Book of the American Bureau of Metal Statistics—1938—p. 23.

Exhibit No. 2097

Wholesale Prices in the United States; All Commodities, Electrolytic Copper, and Nonferrous Metals, 1913–1938

[1926=100]

Year	All commodities	Electrolytic copper [1]	Nonferrous metals
1913	69.8	114.0	88.9
1914	68.1	97.0	76.3
1915	69.5	125.1	108.6
1916	85.5	199.6	160.2
1917	117.5	213.0	165.7
1918	131.3	178.8	144.4
1919	138.6	138.5	118.9
1920	154.4	130.2	118.3
1921	97.6	91.4	78.3
1922	96.7	97.4	83.5
1923	100.6	105.1	95.3
1924	98.1	94.8	93.0
1925	103.5	102.0	101.4
1926	100.0	100.0	100.0
1927	95.4	93.9	92.8
1928	96.7	105.5	94.0
1929	95.3	131.0	106.1
1930	86.4	93.2	82.4
1931	73.0	58.9	61.9
1932	64.8	40.3	49.8
1933	65.9	50.9	59.6
1934	74.9	61.0	67.7
1935	80.0	62.6	68.6
1936	80.8	68.6	71.6
1937	86.3	95.4	89.6
1938	78.6	72.3	72.8

[1] Electrolytic copper, per pound, refinery.

Source: United States Bureau of Labor Statistics.

EXHIBIT No. 2098

THE WHITE HOUSE,
Washington, March 1, 1921.

MY DEAR MR. GARRETT: My attention has recently been called to certain attacks made in the House of Representatives, charging that certain men who rendered distinguished service in the war had profited out of the Government as a result of the fixing of the price of copper. These charges and intimations have been satisfactorily answered, but a statement of the facts in the matter of the fixing of the price of copper during the war, on my part, may further clarify the situation.

As a matter of fact, Mr. Bernard M. Baruch and Mr. John D. Ryan, whose names have been linked with irresponsible gossip in connection with the fixing of the price of copper, had nothing whatever to do with the price fixing negotiations, which finally resulted in the statement I made, fixing the price either at the time the price was fixed, or subsequent thereto. Judge Lovett acted as Chairman of the Committee which considered the first price fixing of copper, and, after due consideration, recommended to the President, in September, 1917, that he had fixed the price at 23½ cents per pound, on condition that the wages of the employees of the copper producing companies should not be reduced below the then prevailing price, which was based on 27 cent copper.

A year later, a readjustment of the price was made necessary by an increase in the railroad rates and costs of supplies, and after negotiations which extended over many months, a further increase was recommended by Mr. Robert Brooking, Chairman of the Price-fixing Committee of the War Industries Board. Neither Mr. Baruch nor Mr. Ryan had any part in these two negotiations, which resulted in the fixing of the price announced by me and the prices were fixed only after an independent investigation and most thorough report by the Federal Trade Commission as to the costs of production.

For six months after the United States entered the war, the producers furnished all the copper necessary for our own war needs and all that was required by our Allies, without any price being asked or fixed, the producers taking the admirable position that they would furnish all the copper necessary for war purposes and adjust their business to whatever prices the Government would consider fair and just in the circumstances. The full production of the copper mines was placed at the disposal of the Government and the Allies, and, without unnecessary urging upon the part of the Government or the President, the production of copper was notably increased, this being an additional proof on the part of the men at the head of the copper industry of the country of their unselfish patriotism. It was their example of meeting the needs of the country that gave impetus to the movement to increase production in all the industrial plants of the country in the early stages of the war. To state that either Mr. Baruch or Mr. Ryan had influenced the action of the Federal Trade Commission in ascertaining the cost of production or attempting to dictate the recommendations either of the War Industries Board or any of the price fixing committes, is utterly foolish and without foundation of any kind. The price of copper was fixed solely by me upon the recommendations of the War Industries Board and Federal Trade Commission, after full examination into the costs of production and without any attempt upon the part of copper producers or Mr. Baruch or Mr. Ryan to exert any pressure upon this Government or upon anybody connected with either of the Boards having to do with these vital matters.

I cannot allow this occasion to pass, my dear Garrett, without again expressing my great confidence in the gentlemen Mr. Bernard M. Baruch and Mr. John D. Ryan, whose names have been unfortunately connected with this matter. There was not a suggestion of scandal connected with either of these gentlemen in any of the war activities in which they played so notable a part, and I wish, before the closing days of this Administration, again to say how admirably they served the needs of the Nation, and how unselfishly they devoted their fine talents to the Government in every crisis which faced us during the critical days of the war. In every transaction which they handled for the Government in the varied activities in which they played so distinguished a part, they were actuated by the highest patriotism. I know you share my opinion in this matter, for you have admirably covered it in your addresses in the House of Representatives.

With sincere regards,

Cordially yours,

WOODROW WILSON.

HON. FINIS GARRETT,
House of Representatives.

Exhibit No. 2099

Officers and Committees of Copper Export Association, Inc.

OFFICERS

Name	Office	Company
Simon Guggenheim	Chairman of the Board	American Smelting & Ref. Co.
John D. Ryan	President	Anaconda Copper Mining Co.
Walter Douglas	First Vice President	Phelps Dodge Corporation.
R. L. Agassiz	Second Vice President	Calumet & Hecla Copper Co.
Joseph Clendenin	Vice President	American Smelting & Ref. Co.
T. Wolfson	do	United Metals Selling Co.
C. A. Austin	do	Phelps-Dodge Corporation.
F. S. Gourley	do	Calumet & Hecla Copper Co.
C. W. Welch	Secretary	United Metals Selling Co.
C. W. Welch	Treasurer	Do.

EXECUTIVE COMMITTEE

Simon Guggenheim, American Smelting & Ref. Co.
John D. Ryan, Anaconda Copper Mining Co.
Walter Douglas, Phelps Dodge Corporation
R. L. Agassiz, Calumet & Hecla Copper Co.
James McLean, Phelps Dodge Corporation
Murry Guggenheim, Kennecott Copper Corporation
C. F. Kelly, Anaconda Copper Mining Co.
James MacNaughton, Calumet & Hecla Copper Co.
Adolph Lewisohn, Miami Copper Co.
William A. Clark, United Verde Copper Co.

SALES COMMITTEE

Joseph Clendenin, American Smelting & Ref. Co.
T. Wolfson, United Metals Selling Co.
C. A. Austin, Phelps Dodge Corporation
F. S. Gourley, Calumet & Hecla Copper Co.

Exhibit No. 2100

Copper prices, London and New York monthly average, 1912–1939

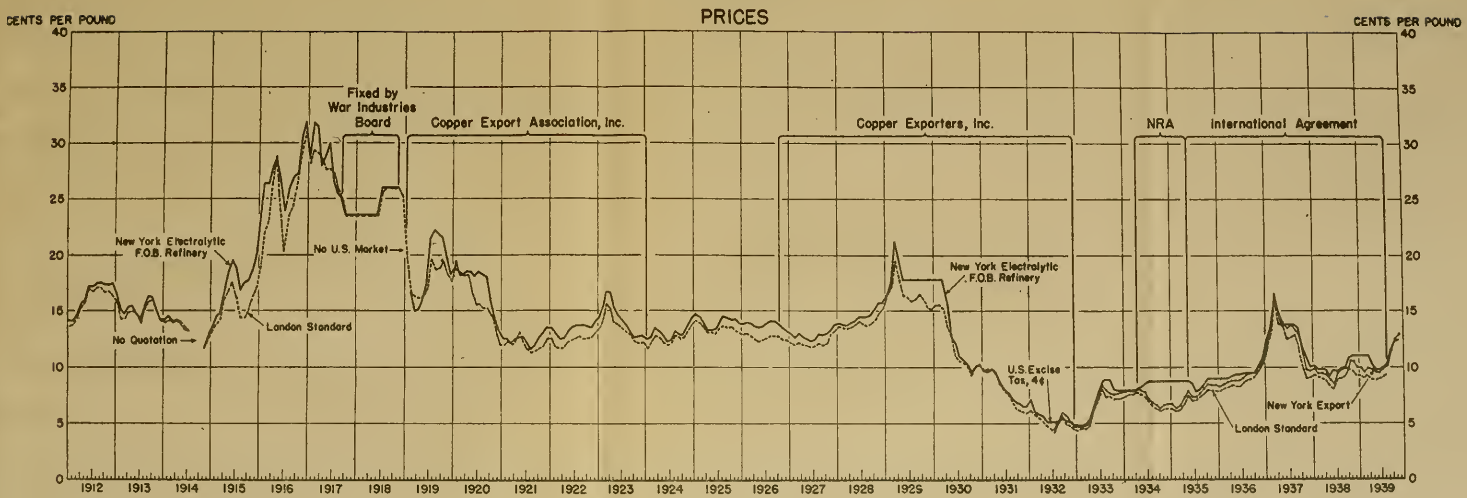
[In cents per pound]

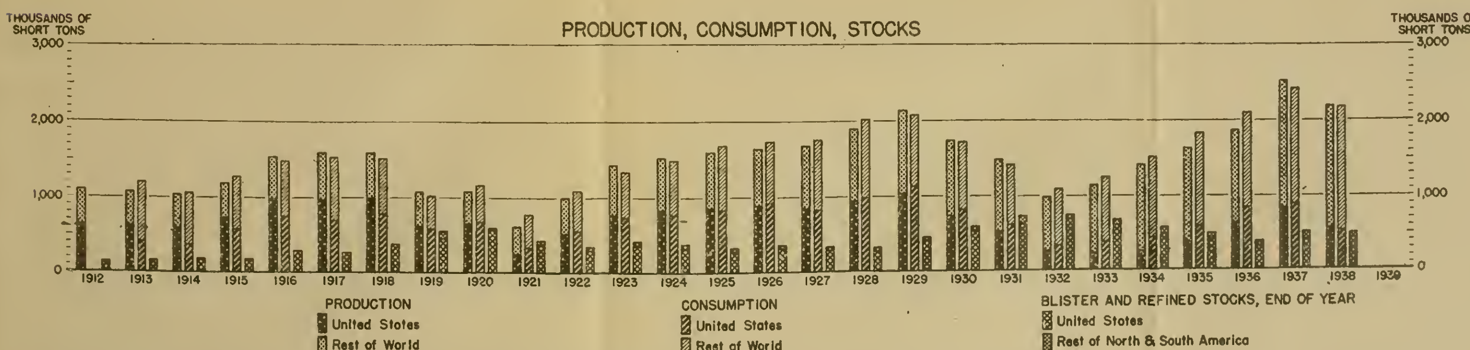
Year and month	London, spot, standard copper [1]	New York electrolytic copper		Difference between—	
		Domestic (f. o. b. refinery)	Export (f. a. s.)	N. Y. domestic and London	N. Y. domestic and N. Y. export
1912:					
January	13.659	14.094		0.435	
February	13.693	14.084		.391	
March	14.342	14.698		.356	
April	15.295	15.741		.446	
May	15.740	16.031		.291	
June	17.035	17.234		.199	
July	16.692	17.190		.498	
August	17.125	17.498		.373	
September	17.103	17.508		.405	
October	16.581	17.314		.733	
November	16.676	17.326		.650	
December	16.371	17.376		1.005	
1913:					
January	15.610	16.488		.878	
February	14.277	14.971		.694	
March	14.238	14.713		.475	
April	14.814	15.291		.477	
May	14.953	15.436		.483	
June	14.603	14.672		.069	
July	13.956	14.190		.234	

See footnote at end of table.

WORLD SUMMARY OF COPPER

1912-1939





SOURCE: Prepared by the staff of the T N E C. Figures for prices from ENGINEERING AND MINING JOURNAL; figures for production and consumption from American Bureau of Metal Statistics; figures for stocks from U S Bureau of Mines.

Copper prices, London and New York monthly average, 1912–1939—Continued

[In cents per pound]

Year and month	London, spot, standard copper	New York electrolytic copper		Difference between—	
		Domestic (f. o. b. refinery)	Export (f. a. s.)	N. Y. domestic and London	N. Y. domestic and N. Y. export
1913:					
August	15.032	15.400		0.368	
September	15.866	16.328		.462	
October	15.925	16.337		.412	
November	14.807	15.182		.375	
December	14.151	14.224		.073	
1914:					
January	13.960	14.223		.263	
February	14.153	14.491		.338	
March	13.951	14.131		.180	
April	14.077	14.211		.134	
May	13.770	13.996		.226	
June	13.373	13.603		.230	
July	13.246	13.223		−.023	
August	(2)	(2)			
September	(2)	(2)			
October	(2)	(2)			
November	11.620	11.739		.119	
December	12.355	12.801		.446	
1915:					
January	13.133	13.641		.508	
February	13.663	14.394		.731	
March	14.175	14.787		.612	
April	16.072	16.811		.739	
May	16.594	18.506		1.912	
June	17.599	19.477		1.878	
July	16.169	18.796		2.627	
August	14.388	16.941		2.553	
September	14.389	17.502		3.113	
October	15.149	17.686		2.537	
November	16.201	18.627		2.426	
December	17.020	20.133		3.113	
1916:					
January	18.714	24.008		5.294	
February	21.821	26.440		4.619	
March	22.904	26.310		3.406	
April	26.446	27.895		1.449	
May	28.773	28.625		−.148	
June	23.882	26.601		2.719	
July	20.204	23.865		3.661	
August	23.425	26.120		2.695	
September	24.190	26.855		2.665	
October	26.068	27.193		1.125	
November	28.597	30.625		2.028	
December	30.847	31.890		1.043	
1917:					
January	28.021	28.673		.652	
February	29.272	31.750		2.478	
March	28.998	31.481		2.483	
April	28.423	27.935		−.488	
May	27.596	28.788		1.192	
June	27.590	29.962		2.372	
July	27.258	26.620		−.638	
August	25.986	25.380		−.606	
September	24.943	25.073		.130	
October	23.336	23.500		.164	
November	23.336	23.500		.164	
December	23.336	23.500		.164	
1918:					
January	23.341	23.500		.159	
February	23.341	23.500		.159	
March	23.341	23.500		.159	
April	23.350	23.500		.150	
May	23.350	23.500		.150	
June	23.341	23.500		.159	
July	25.444	25.904		.460	
August	25.903	26.000		.097	
September	25.898	26.000		.102	
October	25.898	26.000		.102	
November	25.909	26.000		.091	
December	25.159	(3)			

See footnotes at end of table.

Copper prices, London and New York monthly average, 1912–1939—Continued

[In cents per pound]

Year and month	London, spot, standard copper	New York electrolytic copper		Difference between—	
		Domestic (f. o. b. refinery)	Export (f. a. s.)	N. Y. domestic and London	N. Y. domestic and N. Y. export
1919:					
January	19.625	(3)			
February	16.741	16.763		0.022	
March	16.170	14.856		−1.314	
April	16.088	15.246		−.842	
May	16.206	15.864		−.342	
June	17.135	17.610		.475	
July	19.688	21.604		1.916	
August	18.557	22.319		3.762	
September	18.799	21.755		2.956	
October	19.317	21.534		2.217	
November	18.092	19.758		1.666	
December	17.649	18.295		.646	
1920:					
January	19.353	18.918		−.435	
February	18.107	18.569		.462	
March	18.135	18.331		.196	
April	18.050	18.660		.610	
May	16.558	18.484		1.926	
June	15.441	18.065		2.624	
July	15.516	18.576		3.060	
August	15.114	18.346		3.232	
September	15.076	18.144		3.068	
October	14.435	15.934		1.499	
November	12.961	14.257		1.296	
December	11.764	13.188		1.424	
1921:					
January	11.806	12.597		.791	
February	12.220	12.556		.336	
March	11.758	11.976		.218	
April	12.135	12.438		.303	
May	12.959	12.742		−.217	
June	12.101	12.697		.596	
July	11.517	12.170		.653	
August	11.165	11.634		.469	
September	11.281	11.948		.667	
October	11.611	12.673		1.062	
November	11.786	13.035		1.249	
December	12.355	13.555		1.200	
1922:					
January	12.281	13.465		1.184	
February	11.714	12.864		1.150	
March	11.556	12.567		1.011	
April	11.569	12.573		1.004	
May	12.112	13.111		.999	
June	12.304	13.575		1.271	
July	12.519	13.654		1.135	
August	12.702	13.723		1.021	
September	12.476	13.748		1.272	
October	12.431	13.632		1.201	
November	12.545	13.598		1.053	
December	13.007	14.074		1.067	
1923:					
January	13.390	14.510		1.120	
February	14.164	15.355		1.191	
March	15.471	16.832		1.361	
April	15.196	16.663		1.467	
May	13.921	15.440		1.519	
June	13.712	14.663		.951	
July	13.348	14.321		.973	
August	13.027	13.822		.795	
September	12.805	13.323		.518	
October	12.232	12.574		.342	
November	12.050	12.727		.677	
December	12.061	12.823		.762	
1924:					
January	11.640	12.401		.761	
February	12.128	12.708		.580	
March	12.660	13.515		.855	
April	12.488	13.206		.718	
May	12.061	12.772		.711	
June	11.828	12.327		.499	

See footnotes at end of table.

Copper prices, London and New York monthly average, 1912–1939—Continued

[In cents per pound]

Year and month	London, spot, standard copper	New York electrolytic copper		Difference between—	
		Domestic (f. o. b. refinery)	Export (f. a. s.)	N. Y. domestic and London	N. Y. domestic and N. Y. export
1924:					
July	12.018	12.390		0.372	
August	12.739	13.221		.482	
September	12.487	12.917		.430	
October	12.536	12.933		.397	
November	13.103	13.635		.532	
December	13.675	14.260		.585	
1925:					
January	14.089	14.709		.620	
February	13.777	14.463		.686	
March	13.401	14.004		.603	
April	12.954	13.252		.298	
May	13.018	13.347		.329	
June	12.984	13.399		.415	
July	13.323	13.946		.623	
August	13.564	14.490		.926	
September	13.379	14.376		.997	
October	13.389	14.300		.911	
November	13.246	14.353		1.107	
December	12.879	13.866		.987	
1926:					
January	12.785	13.822		1.037	
February	12.942	13.999		1.057	
March	12.704	13.859		1.155	
April	12.403	13.706		1.303	
May	12.244	13.599		1.355	
June	12.319	13.656		1.337	
July	12.548	13.924		1.376	
August	12.751	14.174		1.423	
September	12.707	14.062		1.355	
October	12.610	13.862		1.252	
November	12.389	13.576		1.187	
December	12.302	13.302		1.000	
1927:					
January	11.993	12.990		.997	
February	11.776	12.682		.906	
March	12.108	13.079		.971	
April	11.925	12.808		.883	
May	11.821	12.621		.800	
June	11.703	12.370		.667	
July	11.815	12.532		.717	
August	12.001	12.971		.970	
September	11.812	12.940		1.128	
October	11.972	12.958		.986	
November	12.789	13.319		.530	
December	13.081	13.774		.693	
1928:					
January	13.463	13.854		.391	
February	13.408	13.823		.415	
March	13.310	13.845		.535	
April	13.431	13.986		.555	
May	13.619	14.203		.584	
June	13.857	14.527		.670	
July	13.641	14.527		.886	
August	13.526	14.526		1.000	
September	13.744	14.724		.980	
October	14.175	15.202		1.027	
November	14.725	15.778		1.053	
December	15.003	15.844		.841	
1929:					
January	16.344	16.603		.259	
February	16.930	17.727		.797	
March	19.294	21.257		1.963	
April	17.539	19.500		1.961	
May	16.231	17.775		1.544	
June	16.073	17.775		1.702	
July	15.608	17.775		2.167	
August	15.955	17.775		1.820	
September	16.276	17.775		1.499	
October	15.811	17.775		1.964	
November	15.075	17.775		2.700	
December	14.866	17.775		2.909	

Copper prices, London and New York monthly average, 1912–1939—Continued

[In cents per pound]

Year and month	London, spot, standard copper	New York electrolytic copper		Difference between—	
		Domestic (f. o. b. refinery)	Export (f. a. s.)	N. Y. domestic and London	N. Y. domestic and N. Y. export
1930:					
January	15.520	17.775		2.255	
February	15.488	17.775		2.287	
March	15.012	17.775		2.763	
April	13.469	15.621		2.152	
May	11.527	12.756		1.229	
June	10.840	12.049		1.209	
July	10.481	11.023		.542	
August	10.329	10.693		.364	
September	10.035	10.310		.275	
October	9.331	9.597		.266	
November	9.998	10.113		.115	
December	10.135	10.300		.165	
1931:					
January	9.735	9.838		.103	
February	9.835	9.724		.111	
March	9.716	9.854		.138	
April	9.259	9.392		.133	
May	8.443	8.665		.222	
June	7.778	8.025		.247	
July	7.454	7.698		.244	
August	7.057	7.292		.235	
September	6.346	6.988		.642	
October	6.056	6.775		.719	
November	5.940	6.558		.618	
December	5.755	6.580		.825	
1932:					
January	6.034	7.060		1.026	
February	5.688	5.965		.277	
March	5.360	5.763		.403	
April	5.009	5.565		.556	
May	4.682	5.237		.555	
June	4.372	5.145		.773	
July	4.130	5.053	4.453	.923	0.600
August	4.871	5.219	5.069	.348	.150
September	5.420	5.978	5.707	.558	.271
October	4.833	5.733	5.256	.900	.477
November	4.674	5.131	5.114	.457	.017
December	4.255	4.813	4.759	.558	.054
1933:					
January	4.284	4.775	4.741	.491	.034
February	4.350	4.775	4.710	.425	.065
March	4.317	5.011	4.779	.694	.232
April	4.721	5.395	5.185	.674	.210
May	5.979	6.698	6.569	.719	.129
June	6.781	7.773	7.484	.992	.289
July	7.867	8.635	8.446	.768	.189
August	7.246	8.768	7.937	1.522	.831
September	7.310	8.753	7.788	1.443	.965
October	7.007	7.950	7.557	.943	.393
November	7.027	7.881	7.647	.854	.234
December	7.145	7.885	7.710	.740	.175
1934:					
January	7.335	7.890	7.831	.555	.059
February	7.428	7.777	7.844	.349	−.067
March	7.388	7.775	7.837	.387	−.062
April	7.592	8.173	8.053	.581	.120
May	7.444	8,275	7.913	.831	.362
June	7.244	8.594	7.705	1.350	.889
July	6.684	8.775	7.146	2.091	1.629
August	6.411	8.775	6.885	2.364	1.890
September	6.139	8.775	6.586	2.636	2.189
October	5.900	8.775	6.315	2.875	2.460
November	6.065	8.775	6.513	2.710	2.262
December	6.145	8.775	6.619	2.630	2.156
1935:					
January	6.132	8.775	6.583	2.643	2.192
February	5.912	8.775	6.341	2.863	2,434
March	6.081	8.775	6.526	2.694	2.249
April	6.742	8.775	7.328	2.033	1.447
May	7.273	8.775	7.794	1.502	.981
June	6.782	8.634	7.307	1.852	1.327
July	6.863	7.775	7.350	.912	.425

See footnotes at end of table.

Copper prices, London and New York monthly average, 1912–1939—Continued

[In cents per pound]

Year and month	London, spot, standard copper	New York electrolytic copper: Domestic (f. o. b. refinery)	New York electrolytic copper: Export (f. a. s.)	Difference between—N. Y. domestic and London	Difference between—N. Y. domestic and N. Y. export
1935:					
August	7.240	7.979	7.738	0.739	0.241
September	7.489	8.504	8.146	1.015	.358
October	7.715	8.967	8.514	1.252	.453
November	7.742	9.025	8.414	1.283	.611
December	7.720	9.025	8.414	1.305	.611
1936:					
January	7.687	9.025	8.358	1.338	.667
February	7.881	9.025	8.566	1.144	.459
March	7.996	9.025	8.708	1.029	.317
April	8.157	9.169	8.849	1.012	.320
May	8.138	9.275	8.819	1.137	.456
June	8.138	9.275	8.790	1.137	.485
July	8.344	9.352	8.993	1.008	.359
August	8.583	9.525	9.297	.942	.228
September	8.746	9.525	9.523	.779	.002
October	8.960	9.563	9.669	.603	−.106
November	9.585	10.161	10.349	.576	−.188
December	10.064	10.763	10.835	.699	−.072
1937:					
January	11.280	12.415	12.112	1.135	.303
February	12.937	13.427	13.828	.490	−.401
March	15.773	15.775	16.590	.002	−.815
April	13.716	15.121	14.692	1.405	.429
May	13.474	13.775	13.999	.301	−.224
June	12.268	13.775	13.492	1.507	.283
July	12.506	13.775	13.817	1.269	−.042
August	12.705	13.775	13.926	1.070	−.151
September	11.713	13.530	12.984	1.817	.546
October	10.037	11.838	11.207	1.801	.631
November	8.768	10.797	9.850	2.029	.947
December	8.908	10.006	9.714	1.098	.292
1938:					
January	9.236	10.198	9.908	.962	.290
February	8.869	9.775	9.525	.906	.250
March	8.849	9.775	9.496	.926	.279
April	8.739	9.775	9.443	1.036	.332
May	8.130	9.375	8.801	1.245	.574
June	7.798	8.775	8.500	.977	.275
July	8.745	9.585	9.573	.840	.012
August	8.844	9.900	9.844	1.056	.056
September	8.975	10.028	9.943	1.053	.085
October	9.716	10.760	10.713	1.044	.047
November	9.505	11.025	10.569	1.520	.456
December	9.050	11.025	10.023	1.975	1.002
1939:					
January	8.986	11.025	9.912	2.039	1.113
February	8.823	11.025	9.735	2.202	1.290
March	8.978	11.025	9.888	2.047	1.137
April	8.777	10.265	9.820	1.488	.445
May	8.703	9.833	9.738	1.130	.095
June	8.775	9.775	9.738	1.000	.037
July	8.963	9.976	9.944	1.013	.032
August	9.184	10.261	10.211	1.077	.050
September	(5)	11.635	11.685		−.050
October		12.215	12.491		−.276
November		12.275	12.929		−.654
December					

1 The London price, which was quoted in £'s per long ton, has been converted to dollars, and divided by 2,240 pounds. In converting £'s to dollars, the rates used were for cable transfers for January 1912–December 1913; sight drafts for January 1914–December 1919; and "checks" beginning with January 1920.
2 No quotation.
3 No market.
4 Import tax of 4c per pound, effective June 21, 1932, separating the domestic and export markets.
5 The price of copper was fixed by the British government under the Emergency Powers (Defence) Order of September 1.

Source: All prices and exchange rates since 1920 from *Engineering and Mining Journal.*[4] Exchange rates prior to 1920 from "European Currency and Finance", Commission of Gold and Silver Inquiry U. S. Senate, *Foreign Currency and Exchange* Investigations, Serial 9 (Vol. I), pp. 452–3.

World summary of production, consumption, and stocks of copper, 1912–1938

[In thousands of short tons]

Year	Production[1]			Consumption[2]			Stocks, end of year[3]		
	Total	United States	Rest of world	Total	United States	Rest of world	Total, North and South America	United States	Rest of North and South America
1912	1,100	621	479	(4)	(4)	(4)	(4)	140	(4)
1913	1,072	614	458	1,204	399	805	(4)	169	(4)
1914	1,021	579	442	1,056	367	689	(4)	188	(4)
1915	1,187	712	475	[5] 1,269	568	[5] 701	(4)	178	(4)
1916	1,534	971	563	[5] 1,484	739	[5] 745	(4)	276	(4)
1917	1,580	961	619	[5] 1,523	697	[5] 826	(4)	262	(4)
1918	1,569	969	600	[5] 1,556	766	[5] 790	(4)	371	(4)
1919	1,070	605	465	1,011	570	441	547	452	95
1920	1,082	635	447	1,151	668	483	583	562	21
1921	602	238	364	778	327	451	427	371	56
1922	996	512	484	1,096	552	544	344	288	56
1923	1,412	754	658	1,331	731	600	409	348	61
1924	1,522	819	703	1,492	757	735	374	318	56
1925	1,590	854	736	1,674	814	860	322	278	44
1926	1,637	878	759	1,726	904	822	359	301	58
1927	1,682	847	835	1,758	825	933	330	286	44
1928	1,894	935	959	2,009	983	1,026	315	268	47
1929	2,118	1,026	1,092	2,077	1,119	958	440	403	37
1930	1,735	711	1,024	1,716	809	907	586	533	53
1931	1,488	525	963	1,409	601	808	722	636	86
1932	998	255	743	1,085	336	749	747	691	56
1933	1,146	234	912	1,245	382	863	673	600	73
1934	1,401	240	1,161	1,501	417	1,084	567	479	88
1935	1,617	380	1,237	1,814	578	1,236	496	411	85
1936	1,849	615	1,234	2,088	809	1,279	378	306	72
1937	2,504	835	1,669	2,408	878	1,530	505	393	112
1938	2,184	553	1,631	2,178	522	1,656	490	414	76

[1] Based insofar as possible on blister copper, referred to countries wherein ore originated, with exclusion of copper derived from junk.
[2] As computed by the American Bureau of Metal Statistics. The accounting for the United States includes secondary copper passing through primary refineries, while for the rest of the world it is essentially in terms of new copper.
[3] Blister and refined copper. World figures not available.
[4] Figures not available.
[5] Does not include Belgium.

Source: American Bureau of Metal Statistics and U. S. Bureau of Mines.

EXHIBIT NO. 2101

Telephone 6056 John
Cable "GUEMONTA"

GILBERT H. MONTAGUE
COUNSELLOR AT LAW
40 Wall Street, New York

JANUARY 13, 1919.

Hon. T. W. GREGORY,
Attorney General of the United States,
Washington, D. C.

DEAR MR. GREGORY: Supplementing the memorandum relating to Copper Export Association, Inc., which I sent you on December 13, 1918, I enclose herewith a copy of a form letter, dated January 13, 1919 which the Association intends to send out during the next day or two to producers and operators selling or controlling the sale of export copper from the United States, and also copies of the Certificate of Incorporation and Agency Agreement therein mentioned.

The enclosures, like the memorandum heretofore sent you, are being sent in order that you may have directly from the parties themselves, instead of from the newspapers, the information therein contained.

Very truly yours,

GILBERT H. MONTAGUE.

Enc—
(In writing:) 197843–2

COPPER EXPORT ASSOCIATION, INC.
60 Broadway, New York

JANUARY 13, 1919.

GENTLEMEN: As you are aware, the copper producers of this country, prior to the entry of the United States into the war, were compelled in their export trade to compete with one another in selling copper to foreign buyers, who were largely united into buying combinations. "These combinations" the Federal Trade Commission reported in 1916, "naturally make individual American producers bid against each other, and are thus able to buy at comparatively low prices", and "by such tactics as these and by manipulation of the foreign future markets" have "bought millions of tons of American copper at prices averaging, over a series of years, nearly a cent a pound below the price paid by American consumers."

Under the anti-trust laws, as they then stood, it was at least doubtful whether the copper producers of this country could combine to remedy this situation. The need for remedial legislation, however, was so apparent, that, following repeated recommendations of the President of the United States in several messages to Congress, and in the reports of other Governmental authorities in which the special need of the copper industry for such legislation was emphasized, there was enacted on April 10, 1918, the Webb Act, permitting sellers to organize and operate in combination, solely for the purpose of export trade.

During the war, while the copper production of this country was being distributed under Government direction, there was no need for taking advantage of the Webb Act. With the falling off of the war requirements, however, the need has returned for combined action in export trade by the copper producers of the country.

After conference among a number of producers, a plan has been agreed upon, resulting in the formation, under the laws of Delaware, of a corporation known as COPPER EXPORT ASSOCIATION, INC., which will act as exclusive agent for the sale of export copper for such producers or operators who sell or control the sale of export copper from the United States as may care to become members. As such agent, the Association proposes to procure orders for export copper at prices named by the Association, to allot such orders among the members pro rata according to the amount of copper each member has available for export, to average the prices monthly to each member so that each member will secure for his export copper every month the same price as every other member and at the same time to leave each member free to sell, ship, and bill his export copper direct to the foreign purchaser and to maintain, if he so desires, his own selling representatives abroad, subject always, to the foregoing provisions in respect of apportioning orders and averaging prices. For greater certainty, reference is hereby made to the Agency Agreement herewith enclosed. The plan adopted has been approved by counsel.

Under the provisions of the Webb Act, the Association will be operated in close touch with the Federal Trade Commission, and a copy of this letter and the Association's Certificate of Incorporation and the Agency Agreement above mentioned have been laid before the Federal Trade Commission and the Attorney General of the United States for their full information.

As the Association will act as a broker, a large capitalization is unnecessary, and it is proposed to provide merely the necessary funds to begin to organize and begin business by an authorized issue at par of $250,000.00, 7% Cumulative Preferred stock. Each member may subscribe for and take his pro rata share of the Preferred stock. These subscriptions will from time to time be called pro rata, as the Association requires funds. It will be necessary to issue only a small amount of the authorized Preferred stock at the outset, and the probabilities are that the full amount authorized will never be required. In addition to the Preferred stock, the Association proposes to issue stock without par value, one share to each producer who executes an Agency Agreement with the Association, and becomes a member thereof. All benefits derived will inure to the members in exact proportion as they contribute copper to the export trade. No dividends will be earned or paid on the stock without par value, and no member may hold more than one share thereof. The voting power, except in certain specified contingencies, will be exclusively in the stock without par value, each holder of which will be entitled to one vote for each five hundred short tons of such holder's annual copper production. For greater certainty, reference is hereby made to the copy of the Certificate of Incorporation herewith enclosed. The issuance of the Association's Preferred stock and stock without par value, has been "passed by the Capital Issues Committee as not incompatible with the national interest, but without approval of legality, validity, worth or security. Opinion No. A 3327."

Your attention is directed to the Agency Agreement and the Certificate of Incorporation for further details. You will specially note that the assessments against the members are restricted to the actual expenses incurred by the Association in doing business, and to the dividend requirements of the Association's outstanding paid in Preferred stock.

It is proposed that the benefits derived from the Association shall be to advantage the entire export business, rather than to enable it to make or distribute any profits directly to its membership.

To insure that the membership in the Association shall be as representative as possible, it is desired that every copper producer, dealer or operator who sells or controls the sale of any export copper from the United States shall become a member of the Association by executing the Agency Agreement and subscribing for a share of the Association's stock without par value. It is expected that the Board of Directors may be increased from time to time as may be deemed advisable in order to make the Board at all times representative.

Any further information regarding the Association, which you may desire, will be promptly furnished you by Mr. C. W. Welch, Secretary of the Association, whose address is 60 Broadway.

The Association is desirous that you cooperate and become a member, and hopes to hear from you at your earliest convenience.

Yours very truly,

COPPER EXPORT ASSOCIATION, INC.,
By JOHN D. RYAN, *President.*

EXHIBIT No. 2102

Copper Export Association, Inc.: Names of Members and Non-members

Name	Agency Agreement Signed	Date of Withdrawal
American Smelting & Refining Co	Jan. 8, 1919	Feb. 1, 1924
Anaconda Copper Mining Co	Jan. 11, 1919	Mar. 15, 1933
Arizona Copper Company	Jan. 14, 1919	
Calumet & Arizona Mining Co	Jan. 31, 1919	Feb. 1, 1924
Calumet & Hecla Mining Co	Jan. 8, 1919	Dec. 28, 1932
Chino Copper Company	Jan. 14, 1919	Mar. 25, 1924
Greene Cananea Copper Co	Jan. 11, 1919	Mar. 15, 1933
Inspiration Cons. Copper Co	Jan. 11, 1919	Mar. 15, 1933
International Smelting Co	Jan. 16, 1919	Mar. 15, 1933
Kennecott Copper Corp	Apr. 1, 1919	Jan. 31, 1924
Adolph Lewisohn & Sons	Jan. 8, 1919	Apr. 5, 1920
Miami Copper Company	Jan. 8, 1919	Apr. 5, 1920
Nevada Cons. Copper Co	Jan. 14, 1919	Feb. 1, 1924
New Cornelia Copper Co	Jan. 31, 1919	Feb. 1, 1924
Nichols Copper Company	Sept. 1, 1919	Oct. 1, 1922
North Butte Mining Co	Jan. 20, 1919	Apr. 28, 1924
Phelps Dodge Corporation	Jan. 8, 1919	Feb. 1, 1924
Ray Consolidated Copper Co	Jan. 14, 1919	Feb. 1, 1924
Tennessee Copper Company	Jan. 8, 1919	Apr. 5, 1920
United Metals Selling Co	Jan. 8, 1919	Mar. 15, 1933
U. S. Smelting, Refg. & Mining Co	Feb. 21, 1919	
United Verde Copper Co	Feb. 4, 1919	Mar. 18, 1931
Utah Consolidated Copper Co	Mar. 3, 1919	
Utah Copper Company	Mar. 14, 1919	Feb. 1, 1924
Mother Lode Coalition Mines Co	June 15, 1920	Feb. 1, 1924

NOTE.—In 1921 the Arizona Copper Company was taken over by the Phelps Dodge interests, so it can be assumed that when the latter organization withdrew on February 1, 1924 it included the production of the former company.

Utah Consolidated Copper Co. was dissolved in 1923.

In addition, the copper of the following companies was sold through members of the Association:

Arizona Commercial Mining Co. (Arizona)
Arizona Copper Co. (Arizona)
Boleo Mining Company (Mexico)
Braden Copper Company (Chile)
Cerro de Pasco Copper Corpn. (Peru)
Backus & Johnston (Peru)

Engels Copper Company (California)
Granby Consolidated Copper Co. (Canada)
Howe Sound Copper Company (Canada)
Magma Copper Co. (Arizona)
Mammoth Copper Company (California)
Mason Valley Copper Co. (Arizona)
Old Dominion Copper Co. (Arizona)
Ohio Copper Company (Utah)
Shattuck Mining Company (Arizona)
United Verde Extension Mining Co. (Arizona)
Utah Delaware Mining Co. (Utah)
Walker Mining Co. (Utah)

Except as above set forth, foreign producers were not members of the Association.

NON-MEMBER CONCERNS

The following United States companies were not members of Copper Export Association, Inc:

Consolidated Copper Mines Co.
Copper Range
East Butte
Mohawk
Ohio Copper Company
Quincy Copper Co.
Seneca
Southwest Metals
Wolverine

Exhibit No. 2103

Copper Export Association, Inc.—Number of Votes Cast at Annual Meetings of Stockholders

Name of Stockholder	1919	1920	1921	1922	1923
American Smelting & Refining Co	198	223	102	119	155
Utah Copper Company	193	125	104	49	54
Chino Copper Company	74	50	44	20	15
Nevada Consolidated Copper Co	--------	59	59	9	28
Ray Consolidated Copper Co	86	56	48	22	14
Kennecott Copper Corporation	--------	49	--------	42	41
Tennessee Copper Company	10	--------	--------	--------	--------
Phelps Dodge Corporation	179	131	95	68	77
Calumet & Arizona Mining Co	58	40	45	26	--------
Calumet & Hecla Mining Co	150	92	88	38	62
United Metals Selling Co	8	--------	--------	--------	--------
Greene Cananea Copper Co	38	48	43	15	2
Inspiration Consolidated Copper Co	87	78	82	35	44
Anaconda Copper Mining Co	281	149	135	37	148
Consolidated Coppermines Co	15	7	2	--------	--------
International Smelting Co	12	15	10	--------	55
North Butte Mining Co	14	16	18	6	4
Old Dominion Company	--------	--------	--------	--------	15
New Cornelia Copper Co	43	39	46	20	--------
Nichols Copper Company	--------	--------	--------	51	--------
Utah Consolidated Mining Co	8	6	4	1	1
United Verde Copper Co	--------	42	61	31	24
Arizona Copper Co	42	--------	--------	--------	--------
Miami Copper Company	54	--------	--------	--------	--------
Mother Lode Coalition Mines Co	--------	--------	--------	--------	23
Adolph Lewisohn & Sons	--------	--------	--------	--------	--------
U. S. Smelting Refining & Mining Co	--------	10	--------	--------	--------

Each stockholder owned one share of common stock without par value and was entitled to one vote for each 500 tons of copper production of such holder, as estimated by the Board of Directors for the last preceding twelve months period.

From the records of Copper Export Association, Inc., Certified correct.

R. R. Eckert.
(R. R. Eckert.).

Exhibit No. 2104

Share of World Mine Production of Copper Controlled by Members[1] of Copper Export Association, Inc., 1919–1923

[Amount in short tons]

Item	1919		1920		1921	
	Amount	Percent	Amount	Percent	Amount	Percent
Total world production	1,069,998	100.0	1,082,652	100.0	601,913	100.0
Controlled by members of C. E. A., Inc	700,038	65.4	733,933	67.8	226,739	37.7
United States production	538,017	50.3	551,527	50.9	161,595	26.9
Foreign production	162,021	15.1	182,406	16.9	65,144	10.8
Not controlled by members of C. E. A., Inc	369,960	34.6	348,719	32.2	375,174	62.3
United States production	66,625	6.2	83,721	7.7	76,825	12.8
Foreign production	303,335	28.4	264,998	24.5	298,349	49.5
Percent of total United States production controlled by members of C. E. A., Inc		89.0		86.8		67.8

Item	1922		1923	
	Amount	Percent	Amount	Percent
Total world production	996,147	100.0	1,411,980	100.0
Controlled by members of C. E. A., Inc	563,488	56.6	873,418	61.9
United States production	416,004	41.8	641,220	45.4
Foreign production	147,484	14.8	232,198	16.5
Not controlled by members of C. E. A., Inc	432,659	43.4	538,562	38.1
United States production	95,966	9.6	112,780	8.0
Foreign production	336,693	33.8	425,782	30.1
Percent of total United Stated production controlled by membrs of C. E. A., Inc		81.3		85.0

[1] Controlled either through own mines or through contracts to sell copper of non-members.

Source: Prepared by staff of T. N. E. C. from figures compiled by R. R. Eckert, former manager of Copper Export Association, Inc. Original figures from American Bureau of Metal Statistics.

Exhibit No. 2105

Certificate of Incorporation of Copper Export Association, Inc.

We, the undersigned, in order to form a corporation for the purposes hereinafter stated, under and pursuant to the provisions of an Act of the Legislature of the State of Delaware, entitled "An Act providing a General Corporation Law" (approved March 10, 1899), and the acts amendatory thereof and supplementary thereto, do hereby certify as follows:

First.—The name of the corporation is "Copper Export Association, Inc."

Second.—The location of its principal office in the State of Delaware is in the City of Dover, County of Kent. The name of the resident agent therein and in charge thereof is the United States Corporation Company. The street and number of said principal office and the address by street and number of said resident agent is No. 311 South State Street.

Third.—The nature of the business and the objects and purposes proposed to be transacted, promoted, and carried on by the corporation (hereinafter called the "Association") are to do any and all of the things herein set forth as fully and to the same extent as natural persons might do, viz.:

(a) to enable the holders of the Association's stock without par value to co-operate with one another solely in export trade, in accordance with the Act

of Congress entitled "An Act to promote export trade, and for other purposes," approved April 10, 1918, commonly known as the "Webb Act," and any Acts amendatory thereof or supplementary thereto, and any and all lawful orders and regulations of the Federal Trade Commission thereunder, to the end that each of the holders of the Association's stock without par value may obtain, in trade and commerce in exports from the United States to foreign nations, the benefits of co-operation intended by said Act of Congress, and that the Association, after providing for its necessary and reasonable expenses, shall earn no profits in excess of the dividend requirements on its outstanding paid-in preferred stock;

(b) to engage in trade and commerce in products of ores, minerals, mineral substances, mineral compounds, metals and intermediate metallurgical compounds or substances obtained from the mining, production or refining of ores or minerals, which are for export, or are to be exported, or are in the course of being exported, or have been exported from the United States or any territory thereof to any foreign nation;

(c) to act as the agent, broker, consignee or factor of others in respect of the acquisition, transportation, shipment, purchase, sale, contracting for, dealing in, trade and commerce in, or other disposition of products of ores, minerals, mineral substances, mineral compounds, metals and intermediate metallurgical compounds or substances obtained from the mining, production or refining of ores or minerals, which are for export, or are to be exported, or are in the course of being exported, or have been exported from the United States or any territory thereof to any foreign nation;

(d) to investigate commercial conditions in foreign nations and elsewhere affecting products of ores, minerals, mineral substances, mineral compounds, metals and intermediate metallurgical compounds or substances obtained from the mining, production or refining of ores or minerals, and to collect, circulate or otherwise utilize statistics and other information relating thereto;

(e) to subscribe to, become a member of, and co-operate with others, whether incorporated or not, engaged in business similar or incidental to that of the Association, and to purchase, acquire, hold, and dispose of shares or obligations of any such corporations;

(f) to acquire, transport, ship, buy, sell, contract for, deal in, engage in trade or commerce in, or otherwise dispose of products of ores, minerals, mineral substances, mineral compounds, metals and intermediate metallurgical compounds or substances obtained from the mining, production or refining of ores or minerals, which are for export, or are to be exported, or are in the course of being exported, or have been exported from the United States or any territory thereof to any foreign nation;

(g) to purchase, lease, charter, acquire, build, erect, maintain, operate and manage offices, warehouses, vessels, docks and other plant and equipment for the purposes of the Association;

(h) to buy or otherwise acquire, hold, lease, sell, exchange, mortgage, pledge, or otherwise dispose of any property, real or personal, rights, franchises, or good will which the purposes of the Association shall require, subject to such limitations as may be prescribed by law;

(i) to borrow or raise money for the purposes of the Association, to secure the same and any interest thereon, and for that purpose or any other purpose permitted by law, and subject to the restrictions and conditions thereby imposed, to mortgage and charge all or any part of the property, rights and franchises of the Association, and to issue, sell, pledge, or otherwise dispose of its notes, bonds, debentures and other evidences of indebtedness, and to draw, make, accept, endorse, discount, execute and issue promissory notes, bills of exchange, warrants and other negotiable or transferable instruments;

(j) to make, purchase or otherwise acquire, deal in, and carry out any contracts for or in relation to any of the foregoing purposes that may be necessary and lawful;

(k) to conduct and transact the business of the Association in any or all of its branches in the State of Delaware and in any or all of the states, territories, colonies, or dependencies of the United States, in the District of Columbia and in any and all foreign nations, and to have one or more offices therein, and to hold, purchase, mortgage and convey real and personal property without limit as to amount in any such state, territory, colony, dependency or foreign nation, but always subject to the laws thereof, and to do all and everything necessary, suitable and proper for the accomplishment of any of the purposes hereinbefore set forth, either alone or in association with other corporations, firms or individuals, and to do every other act or acts incidental to the aforesaid purposes;

The foregoing clauses shall be construed both as objects and powers, and the enumeration of specific powers shall not be held to limit or restrict in any manner the general powers of the Association and the enjoyment thereof, as conferred by the laws of the State of Delaware upon corporations organized under the laws of that state, and the objects and powers specified in any clauses shall, except where otherwise expressed, be in no wise limited or restricted by references to or inferences from the terms of any other clause, but the objects and powers specified in each of the clauses shall be regarded as independent purposes and powers; *provided, however*, that the same be in all respects subject to, and governed by, and not inconsistent with, the laws under which the Association is organized, and the Act of Congress entitled "An Act to promote export trade, and for other purposes," approved April 10, 1918, commonly known as the "Webb Act," and any Acts amendatory thereof or supplementary thereto, and any and all lawful orders and regulations of the Federal Trade Commission thereunder.

FOURTH.—The total number of shares of capital stock authorized and which may be issued by the Association is Three thousand (3,000), of which Two thousand five hundred (2,500) of the par value of One hundred ($100) Dollars each are to be preferred stock, and Five hundred (500) are to be stock without par value.

The amount of capital stock with which the Association will commence business is the sum of One thousand Dollars ($1,000), and the number of shares with which it will commence business is Ten (10) preferred shares.

The shares of stock without par value shall be issued fully paid and non-assessable, for such consideration not exceeding One Dollar ($1.00) per share as may from time to time be fixed by the Board of Directors, and shall be issued to, and may be acquired by, such persons, firms or corporations only as shall have executed agreements with the Association appointing the Association their exclusive agent for the export sale of all their unmanufactured metallic copper. Stock without par value shall be entitled to no dividends. No person, firm or corporation shall be entitled to hold more than one share of stock without par value.

The shares of stock without par value are divided into different classes in respect of voting powers, as follows: Each share of stock without par value shall constitute a separate class, the holder of which shall be entitled at any meeting of stockholders of the Association to one vote in person or by proxy for each Five hundred (500) tons of copper production of such holder, as estimated by the Board of Directors for the last preceding twelve months' period in respect of which the Board of Directors by resolution shall have expressed such estimate; provided, always, that upon breach of any of the provisions of such holder's agreement aforesaid with the Association, the Board of Directors by resolution may, and upon any termination or cessation of said agreement shall, declare forfeited all rights of such holder as a holder of stock without par value and declare forfeited to the Association all rights of such holder in the property of the Association as a holder of stock without par value, whereupon such holder shall forfeit all said rights as aforesaid, and the Board of Directors by like resolution may cancel the certificate of stock without par value standing in the name of such holder, and such stock without par value may be again issued in the manner above set forth; and provided, always, that whenever and so often as there shall be less than five holders of stock without par value entitled to vote as hereinbefore provided, the holders of stock without par value shall have no vote at any meeting of stockholders of the Association excepting, only, in proceedings which would alter or change any preference affecting the stock without par value, or would increase or decrease the amount of the authorized stock without par value, or would increase or decrease the par value thereof.

The holders of preferred stock shall be entitled to vote in any proceedings at any meeting of stockholders of the Association which would alter or change the preferences given to or affecting the preferred stock, or would increase or decrease the amount of the authorized preferred stock, or would increase or decrease the par value thereof, and shall also be entitled to vote at any meeting of the stockholders of the Association whenever and so often as there shall be less than five holders of stock without par value entitled to vote as hereinbefore provided; but except as hereinbefore provided, the holders of preferred stock shall have no vote.

The holders of the preferred stock shall be entitled to cumulative dividends, payable out of any and all surplus or net profits, as and when declared by the Board of Directors, at the rate of seven (7) per centum per annum, and no more, upon the amount actually paid in on each share of preferred stock.

In the event of the dissolution or liquidation of the Association, or a sale of all its assets whether voluntary or involuntary, or in event of its insolvency, or upon any distribution of its capital, there shall be paid to the holders of the preferred stock the amount actually paid in thereon per share and the amount of all unpaid

dividends accrued thereon, before any sum shall be paid or any property distributed among the holders of stock without par value. After the payment as aforesaid to the holders of the preferred stock, the remaining moneys and property of the Association shall be divided among, and paid to, the holders of the shares of stock without par value in proportion to the votes to which they shall then be entitled respectively.

FIFTH.—The names and places of residence of each of the original subscribers to the capital stock, and the number of preferred shares subscribed for by each, are as follows:

Name	Residence	Number of preferred shares
Gilbert H. Montague	No. 152 East 37th Street, New York City, N. Y.	Four.
Joseph W. Goodwin	Church Street, Richmond Hill, N. Y.	Three.
William Herrmann	No. 94 Leicester Street, Port Chester, N. Y.	Three.

SIXTH.—The Association is to have perpetual existence.

SEVENTH.—The private property of the stockholders shall not be subject to the payment of corporate debts to any extent whatever.

EIGHTH.—The number of Directors of the Association shall be fixed by the By-Laws, and may be altered from time to time as may be provided in the By-Laws. In case of any increase in the Board of Directors, the additional Directors may be elected, as provided in the By-Laws, by the Board of Directors, or at any meeting of the stockholders entitled to vote. The Directors shall be equally divided, as nearly as may be, into three classes; the term of office of those of the first class to expire at the annual meeting next ensuing their election, of the second class one year thereafter, of the third class two years thereafter, and at each annual election held after such classification and election Directors shall be chosen for a full term of three years to succeed those whose terms expire. A Director need not be a stockholder. In furtherance, and not in limitation, of the powers conferred by statute, the Board of Directors is expressly authorized to make and alter the By-Laws of the Association.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 6th day of December, 1918.

GILBERT H. MONTAGUE (Seal)
JOSEPH W. GOODWIN (Seal)
WILLIAM HERRMANN (Seal)

STATE OF NEW YORK,
County of New York, ss:

Be It Remembered that on this 6th day of December, 1918, personally came before me, MAY A. DUVAL a Notary Public in and for the County and State aforesaid, Gilbert H. Montague, Joseph W. Goodwin, and William Herrmann, parties to the foregoing Certificate of Incorporation, to me known and known to me personally to be such, and severally acknowledged the said Certificate to be the act and deed of the signers respectively, and that the facts therein stated are truly set forth.

Given under my hand and seal of office the day and year aforesaid.

[SEAL] MAY A. DUVAL,

Notary Public, Kings County No. 81, Certificate filed in New York County No. 212.
Term expires March 30, 1920.

EXHIBIT NO. 2106

(Superseded by new By-Laws adopted March 31, 1923)

BY-LAWS OF COPPER EXPORT ASSOCIATION

ARTICLE I. STOCKHOLDERS

SECTION 1. *Place of Holding Meetings.*—All meetings of the stockholders shall be held at the office of the Association in the City of New York, in the State of New York.

SECTION 2. *Voting—Limitations of Stockholders' Rights.*—Stockholders shall be entitled to vote at meetings either in person or by proxy appointed by instrument

in writing subscribed by such stockholder or by such stockholder's duly authorized attorney.

The shares of stock without par value are divided into different classes in respect of voting powers, as follows: Each share of stock without par value shall constitute a separate class, the holder of which shall be entitled at any meeting of stockholders of the Association to one vote in person or by proxy for each Five hundred (500) tons of copper production of such holder, as estimated by the Board of Directors for the last preceding twelve months' period in respect of which the Board of Directors by resolution shall have expressed such estimate; provided, always, that upon breach of any of the provisions of such holder's agreement aforesaid with the Association, the Board of Directors by resolution may, and upon any termination or cessation of said agreement shall, declare forfeited all rights of such holder as a holder of stock without par value and declare forfeited to the Association all rights of such holder in the property of the Association as a holder of stock without par value, whereupon such holder shall forfeit all said rights as aforesaid, and the Board of directors by like resolution may cancel the certificate of stock without par value standing in the name of such holder, and such stock without par value may again be issued in the manner set forth in Article VI, Section 1 hereof; and provided, always, that whenever and so often as there shall be less than five holders of stock without part value entitled to vote as hereinbefore provided, the holders of stock without par value shall have no vote at any meeting of stockholders of the Association excepting, only, in proceedings which would alter or change any preference affecting the stock without par value, or would increase or decrease the amount of the authorized stock without par value, or would increase or decrease the par value thereof.

The holders of preferred stock shall be entitled to vote in any proceedings at any meeting of stockholders of the Association which would alter or change the preferences given to or affecting the preferred stock, or would increase or decrease the amount of the authorized preferred stock, or would increase or decrease the par value thereof, and shall also be entitled to vote at any meeting of the stockholders of the Association whenever and so often as there shall be less than five holders of stock without par value entitled to vote as hereinbefore provided; but except as hereinbefore provided, the holders of preferred stock shall have no vote.

SECTION 3. *Quorum.*—Any number of stockholders, present or represented by proxy at any meeting duly called, who together hold at least a majority of the total number of votes entitled to be cast at such meeting, shall constitute a quorum for the transaction of business.

SECTION 4. *Adjournment of Meetings.*—If less than a quorum shall be in attendance at the time for which the meeting shall have been called, the meeting may, after the lapse of at least half an hour, be adjourned from time to time, by majority vote of the stockholders present or represented, and entitled to vote, for a period not exceeding one month at any one time, without any notice other than by announcement at the meeting, until a quorum shall attend. Any meeting at which a quorum is present may also be adjourned, in like manner, for such time, or upon such call as may be determined by vote. At any adjourned meeting at which a quorum shall attend, any business may be transacted which might have been transacted if the meeting had been held as originally called.

SECTION 5. *Annual Election of Directors.*—The annual meeting of stockholders for the election of directors and the transaction of other business shall be held on the second Tuesday of May in each year, at two o'clock in the afternoon. If this date shall fall upon a legal holiday, the meeting shall be held on the next succeeding business day. At each annual meeting, the stockholders entitled to vote shall elect by plurality vote by ballot directors to fill the expiring terms, and they may transact such other corporate business as shall be stated in the notice of the meeting.

SECTION 6. *Special Meetings; How Called.*—Special meetings of the stockholders for any purpose may be called by the Chairman of the Board of Directors, or the President, or the Secretary, and shall be called upon request in writing therefor stating the purpose thereof and delivered to the Chairman of the Board of Directors, or the President, or the Secretary, and signed by three directors or by three holders of stock without par value, or upon request by resolution of the Board of Directors.

SECTION 7. *Manner of Voting at Stockholders' Meetings.*—At all meetings of stockholders, all questions, except questions the manner of deciding which is specially regulated by statute, shall be determined by a majority of all the votes cast by the stockholders entitled to vote. All voting shall be by ballot, and each ballot shall state the name of the stockholder voting and the number of votes

to which such holder is entitled and the number of votes each holder is voting, and if such ballot be cast by proxy, such ballot shall also state the name of such proxy.

SECTION 8. *Notice of Stockholders' Meetings.*—Written notice, stating the place and time of the meeting and the general nature of the business to be considered, shall be given or mailed by the Secretary to each stockholder entitled to vote, at his last known post-office address, at least five days before the meeting in the case of an annual meeting, and two days before the meeting in the case of a special meeting. No business other than that stated in the notice shall be transacted at any meeting without the unanimous consent of all the stockholders present or represented thereat. Notice of any stockholders' meeting may be dispensed with by consent of all the stockholders entitled to vote.

ARTICLE II. DIRECTORS

SECTION 1. *First Meeting.*—The newly-elected directors shall meet as soon as possible after their election for the purpose of organization and the transaction of business, and no notice of such meeting shall be necessary to them in order to legally constitute the meeting, provided a majority of the directors elected and in office shall be present. After each annual meeting of the stockholders, the directors shall meet as soon as possible for the purpose of organization and the transaction of business, and no notice of such meeting shall be necessary to them in order to legally constitute the meeting, provided a majority of the directors elected and in office shall be present. By consent of all the directors elected and in office, the time of such first meeting may be otherwise fixed.

SECTION 2. *Election of Officers and Executive Committee.*—At such first meeting, the directors, by majority vote of the directors present, shall elect from their own number a Chairman of the Board of Directors, a President, a First Vice-President, a Second Vice-President, and an Executive Committee of ten members, of which the Chairman of the Board of Directors, the President, the First Vice-President, and the Second Vice-President shall be members ex officio, and shall also elect a Treasurer and a Secretary who need not be directors. Such officers, other than the Executive Committee, which shall hold office during the pleasure of the Board of Directors, shall hold office until the next annual election of officers and until their successors are elected and qualify. In case any such officers shall not be elected at such first meeting, they may be elected at any subsequent meeting of directors called for the purpose. The Board may also, from time to time, appoint such additional Vice-Presidents as it may deem necessary, who need not be members of the Board, with such powers and duties as the Board may prescribe, and to hold office during the pleasure of the Board.

SECTION 3. *Regular Meetings.*—Regular meetings of the directors may be held without notice at such places and times as shall be determined from time to time by resolution of the directors.

SECTION 4. *Special Meetings: How Called: Notice.*—On the written request of any two directors, special meetings of the directors may be called by the Chairman of the Board of Directors, or the President, or by the Secretary, on one day's notice to each director. Notice of any special meeting of the directors may be dispensed with by consent of all the directors elected and in office.

SECTION 5. *Number and quorum.*—The number of directors shall be twenty-five. The Directors shall be equally divided, as nearly as may be, into three classes; the term of office of those of the first class to expire at the annual meeting next ensuing their election, of the second class one year thereafter, of the third class two years thereafter, and at each annual election held after such classification and election Directors shall be chosen for a full term of three years to succeed those whose terms expire. A majority of the Directors elected and in office shall constitute a quorum of the Board of Directors for the transaction of business. Directors need not be stockholders.

SECTION 6. *Place of Meeting.*—The directors may hold their meetings, and have one or more offices, and keep the books of the Association, outside the State of Delaware, at any office or offices of the Association, or at any other place, as they may from time to time by resolution determine, provided, however, that a duplicate stock ledger shall always be kept at the principal office of the Association in Delaware.

SECTION 7. *General Powers of Directors.*—The Board of Directors shall have the management of the business of the Association, and subject to the restrictions imposed by law, by the Certificate of Incorporation, and by these By-Laws may exercise all the powers of the Association.

SECTION 8. *Specific Powers of Directors.*—Without prejudice to such general powers, it is hereby expressly declared that the directors shall have the following powers, to wit:

(1) to adopt and alter a common seal of the Association;

(2) to make and change regulations, not inconsistent with these By-Laws, for the management of the Association's business and affairs;

(3) to purchase or otherwise acquire for the Association any property, rights or privileges which the Association is authorized to acquire;

(4) to pay for any property purchased for the Association either wholly or partly in money, stock, bonds, debentures or other securities of the Association;

(5) to borrow money and to make and issue notes, bonds and other negotiable and transferable instruments, mortgages, deeds of trust and trust agreements, and to do every act and thing necessary to effectuate the same;

(6) to remove any officer other than director for cause, or any such officer other than the Chairman of the Board of Directors, the President, the First Vice-President, or the Second Vice-President summarily without cause, and in their discretion, from time to time, to devolve the powers and duties of any officer upon any other person for the time being;

(7) to appoint and remove or suspend such subordinate officers, managers, agents or assistants as they may deem necessary, and to determine their duties, and to fix and from time to time change their salaries or remuneration, and to require security as and when they think fit;

(8) to confer upon any officer of the Association the power to appoint, remove and suspend subordinate officers, managers, agents and assistants;

(9) to determine who shall be authorized on the Association's behalf to make and sign bills, notes, acceptances, endorsements, checks, releases, receipts, contracts and other instruments;

(10) to determine who shall be entitled to vote in the name and behalf of the Association upon any shares of stock, bonds, or other securities of other corporations held by the Association, and to assign or transfer the same;

(11) to call special meetings of the stockholders for any purpose or purposes;

(12) to delegate any of the powers of the Board of Directors in relation to the ordinary business of the Association to any standing or special committee, or to any officer, subordinate officer, manager, agent, or assistant, with or without power to sub-delegate, and upon such terms as the Board think fit.

SECTION 9. *Estimate of Number of Tons of Copper Production.*—In April of each year, on or before the 15th day of said month, and at such other times as the Board of Directors shall see fit, the Board of Directors shall estimate the number of tons of copper production of each holder of stock without par value during the twelve last preceding calendar months' period, and the President shall certify a list of such stockholders entitled to vote at stoockholders' meetings and the number of votes to which each of such stockholders is entitled.

SECTION 10. *Compensation of Directors.*—Directors shall not receive any stated salary for their services as directors, but by resolution of the Board of Directors a fixed fee and expenses of attendance may be allowed for attendance at each meeting of the Board of Directors and of the Executive Committee. Nothing herein contained shall be construed to preclude any director from serving the Association in any other capacity as an officer, subordinate officer, manager, agent, assistant or otherwise, and receiving compensation therefor.

ARTICLE III. EXECUTIVE COMMITTEE

SECTION 1. *Powers.*—During the intervals between the meetings of the Board of Directors, the Executive Committee shall have and may exercise all the powers of the directors in the management of the business and affairs of the Association, including power to authorize the seal of the Association to be affixed to any papers that may require it, according as the Executive Committee shall deem best for the interests of the Association, unless otherwise specifically directed by the Board of Directors. The Executive Committee may make its own rules or procedure, and shall meet where and as provided by such rules or by a resolution of the Executive Committee. A majority of the members of the Executive Committee shall constitute a quorum of the Executive Committee.

ARTICLE IV. OFFICERS

SECTION 1. The officers of the Association, other than the members of the Board of Directors' and the Executive Committee, shall consist of a Chairman of the Board of Directors, a President, a First Vice-President, a Second Vice-

President, a Secretary, a Treasurer, and such additional Vice-Presidents with such powers as the Board may appoint. One person may hold the offices of Secretary and Treasurer, or Vice-President and Secretary, or Vice-President and Treasurer.

SECTION 2. *Chairman of the Board of Directors.*—The Chairman of the Board of Directors shall preside at all meetings of the Board of Directors and shall perform all the executive duties usually appertaining to the office of Chairman, or which may be assigned to him from time to time by the Board of Directors or Executive Committee.

SECTION 3. *President.*—The President shall preside at all meetings of the stockholders and of the Executive Committee, and shall discharge all other executive duties usually appertaining to the office of President, or which may be assigned to him from time to time by the Board of Directors or the Executive Committee.

SECTION 4. *Vice-Presidents.*—The Vice-Presidents, other than the additional Vice-Presidents herein provided for, shall in the order of their election be vested with all the powers and shall perform all the duties ot the President in the absence or disability of the latter, unless or until the directors shall otherwise determine. They shall have such other powers and perform such other duties as may from time to time be assigned to them by the Board of Directors.

SECTION 5. *Secretary.*—The Secretary shall give, or cause to be given, subject to the provisions of Article I Section 8 and Article II, Sections 3 and 4 hereof, notice of all meetings of stockholders and directors, and all other notices required by law or by these By-Laws, and in case of his absence or refusal or neglect so to do, any such notice may be given by any person thereunto directed by the President, or by the directors or stockholders upon whose request the meeting is called as provided in these By-Laws. The Secretary shall record all the proceedings of the meetings of the Association and of the directors in books to be kept for that purpose, and shall perform such other duties as may from time to time be assigned to him by the directors or the President. He shall have the custody of the seal of the Association, and shall affix the same to all instruments requiring it, when authorized by the directors or the President and attest the same. He shall be sworn to the faithful discharge of his duties.

SECTION 6. *Treasurer.*—The Treasurer shall have the custody of all funds, securities, evidences of indebtedness and other valuable documents of the Association. He shall receive and give or cause to be given receipts and acquittances for moneys paid in on account of the Association, and shall pay out of the funds on hand all just debts of the Association of whatever nature upon maturity of the same. He shall enter or cause to be entered in books of the Association to be kept for that purpose full and accurate accounts of all moneys received and paid out on account of the Association, and whenever required by the President or the directors he shall render a statement of his cash accounts. He shall keep or cause to be kept such other books as will show a true record of the expenses, losses, gains, assets and liabilities of the Association. He shall, unless otherwise determined by the directors, have charge of the original stock books, transfer books and stock ledgers and act as transfer agent in respect of the stock and securities of the Association, and perform all other duties incident to the office of Treasurer. He shall, if so directed by the Board of Directors, give the Association a bond for the faithful discharge of his duties in such amount and with such surety as the Board of Directors shall prescribe.

ARTICLE V. RESIGNATIONS: FILLING OF VACANCIES: INCREASE OF NUMBER OF DIRECTORS

SECTION 1. *Resignation.*—Any officer, director, or member of a committee may resign at any time. Such resignation shall be made in writing and shall take effect at the time specified therein, and if no time be specified, at the time of its receipt by the President or Secretary. The acceptance of a resignation shall not be necessary to make it effective.

SECTION 2. *Filling of Vacancies.*—If the place of any officer, director, or member of a committee becomes vacant, or if the office of any officer, director or member of committee shall be vacant by reason of no previous election or appointment of any person thereto, the directors elected and in office, although less than a quorum, may appoint any qualified person to fill such vacancy, who shall hold office for the unexpired term and until his successor shall be duly chosen.

ARTICLE VI. CAPITAL STOCK

SECTION 1. *Issue of Certificates of Stock.*—The President shall cause to be issued to each stockholder one or more certificates, under the seal of the Association, signed by the President or one of the Vice-Presidents and the Treasurer or Secretary certifying the number of shares owned by him in the Association. The shares of stock without par value shall be issued fully paid and nonassessable, for such consideration not exceeding One Dollar ($1.00) per share as may from time to time be fixed by the Board of Directors, and shall be issued to, and may be acquired by, such persons, firms or corporations only as shall have executed agreements with the Association appointing the Association their exclusive agent for the export sale of all their unmanufactured metallic copper. No person, firm or corporation shall be entitled to hold more than one share of stock without par value.

SECTION 2. *Transfer of Preferred Shares.*—The shares of preferred stock of the Association shall be transferable only upon its books by the holders thereof in person or by their duly authorized attorneys or legal representatives, and upon such transfer the old certificates shall be surrendered to the company by the delivery thereof to the person in charge of the stock and transfer books and ledgers, or to such other person as the directors may designate, by whom they shall be cancelled, and new certificates shall thereupon be issued. A record shall be made of each transfer, and a duplicate thereof mailed to the Delaware office, and whenever a transfer shall be made for collateral security, and not absolutely, it shall be so expressed in the entry of the transfer.

SECTION 3. *Dividends Upon Preferred Shares.*—The directors, as and when they deem expedient, may declare dividends upon the shares of preferred stock of the Association out of any and all surplus or net profits arising from the business of the Association, at the rate of seven (7) per centum per annum, and no more, upon the amount actually paid in on each share of preferred stock. Before declaring any dividend there may be reserved out of the accumulated profits such sum or sums as the directors from time to time in their discretion think proper as a reserve fund to meet contingencies, or for such other purposes as the directors shall think conducive to the interests of the Association. The directors may close the transfer books for not exceeding twenty days next preceding the day appointed for the payment of any dividend.

SECTION 4. *No Dividends upon Shares without Par Value.*—No dividends, except on dissolution of the Association, shall be declared or paid upon the shares of stock without par value.

ARTICLE VII. MISCELLANEOUS PROVISIONS

SECTION 1. *Fiscal Year.*—The fiscal year of the Association shall be the calendar year.

SECTION 2. *Offices.*—The principal office of the Association shall be established and maintained at the office of the United States Corporation Company, at No. 311 South State Street, in the City of Dover, in the County of Kent, in the State of Delaware, and said company shall be the resident agent of the Association in charge thereof. A duplicate stock ledger shall be kept at such office. An office of the Association shall also be established and maintained in the City of New York, in the State of New York.

SECTION 3. *Notice and Waiver of Notice.*—Whenever any notice is required by these By-Laws to be given, personal notice is not meant unless expressly so stated; and any notice so required shall be deemed to be sufficient if given by depositing the same in a post-office box in a sealed post-paid wrapper, addressed to the person entitled thereto at his last known post-office address, and such notice shall be deemed to have been given on the day of such mailing. Any notice required to be given under these By-Laws may be waived by the person entitled thereto.

SECTION 4. *Dissolution or Liquidation.*—In the event of the dissolution or liquidation of the Association, or a sale of all its assets whether voluntary or involuntary, or in event of its insolvency, or upon any distribution of its capital, there shall be paid to the holders of the preferred stock the amount actually paid in thereon per share and the amount of all unpaid dividends accrued thereon, before any sum shall be paid or any property distributed among the holders of stock without par value. After the payment as aforesaid to the holders of the preferred stock, the remaining moneys and property of the Association shall be divided among, and paid to, the holders of the shares of stock without par value in proportion to the votes to which they shall then be entitled respectively.

ARTICLE VIII. AMENDMENTS

SECTION 1. *Amendment of By-Laws.*—The stockholders entitled to vote, as provided in Article I, Section 2, or the Board of Directors, may at any meeting amend or alter or repeal any of these By-Laws.

EXHIBIT NO. 2107

AGREEMENT BETWEEN ———— AND COPPER EXPORT ASSOCIATION, INC.

AGREEMENT, made this day of , in the year nineteen hundred and between

a corporation organized and existing under the laws of (hereinafter called "Producer"), and COPPER EXPORT ASSOCIATION, INC., a corporation organized and existing under the laws of the State of Delaware (hereinafter called "Association"):

WHEREAS, the Association was organized to enable all the members thereof, by executing agreements indentical herewith, to cooperate with one another solely in export trade, in accordance with the Act of Congress entitled "An Act to promote export trade, and for other purposes," approved April 10, 1918, commonly known as the "Webb Act," and any Acts amendatory thereof or supplementary thereto, and any and all lawful orders and regulations of the Federal Trade Commission thereunder; and

WHEREAS, the Association proposes, after providing for its necessary and reasonable expenses, to earn no profits in excess of the dividend requirements on its outstanding paid-in preferred stock, and to enable all the members thereof to obtain, in their trade and commerce in exports from the United States to foreign nations, the benefits of cooperation intended by said Act of Congress; and

WHEREAS, the Producer desires to become a member of the Association, and to cooperate as aforesaid with all the other members thereof, in the manner set forth in the Certificate of Incorporation and the By-Laws of the Association and upon the terms hereinafter set forth:

NOW THEREFORE, it is agreed between the parties hereto, as follows:

FIRST.—The term "copper," wherever used herein, shall be deemed to include all unmanufactured metallic copper.

The term "export copper," wherever used herein, shall be deemed to mean copper which is for export, or is to be exported, or is in the course of being exported, or has been exported, from the United States or any territory thereof, to any foreign nation.

The term "all the members," wherever used herein, shall be deemed to mean all those, including the Producer, who shall have executed agreements with the Association identical herewith.

The term "Producer's export copper," wherever used herein, shall be deemed to mean all export copper the sale or disposition of which is controlled by the Producer; and the term "all the members' export copper," wherever used herein, shall be deemed to mean all export copper the sale or disposition of which is controlled by all the members respectively; and the term "Producer's copper production," wherever used herein, shall be deemed to include all copper the sale or disposition of which is controlled by the Producer; and the term "all the members' copper production," wherever used herein, shall be deemed to mean all copper the sale or disposition of which is controlled by all the members respectively.

The term "export deliveries," wherever used herein, shall be deemed to mean export copper sold and actually delivered on dock or lighter at United States seaboard, or on carrier, consigned to a destination beyond United States international boundary.

The term "Producer's export quota," wherever used herein, shall be deemed to be the value of the Producer's export deliveries if the Producer's export deliveries were all sold at a price equal to the average of the prices at which all the members' export deliveries were sold, computing such prices on the basis of f. o. b. dock or lighter at United States seaboard, with such adjustments in respect of special shapes or special deliveries as the Association, in its discretion, may from time to time make.

SECOND.—Beginning at the date of this Agreement and ending December 31, 1940, subject, however, to the provisions of paragraph "Tenth" hereof, the Producer shall not sell any export copper whatsoever except through the Association

in the manner hereinafter set forth, and the Association shall act as the exclusive agent for the Producer for the sale of all the Producer's export copper, and the Producer shall, at the prices contracted for by the Association, but on terms of payment approved by the Producer, accept and fully carry out all orders for export copper which the Association shall have allotted to the Producer in the manner hereinafter set forth. The Producer may, however, at its own expense, maintain its own selling representatives, and sell export copper to customers direct, but such sales shall only be at prices and on terms approved by the Association, and shall be immediately reported by the Prodcuer to the Association, and shall, for all purposes of this Agreement, be deemed to be orders allotted by the Association to the Producer, and, when delivered as aforesaid, to be export deliveries of the producer. If the Producer's sales of export copper, in any one month, shall exceed its allotment for that month, the same shall be adjusted to the basis of the allotment made to it for that month.

THIRD.—At the date of this Agreement and thereafter on or before the 10th day of each month, the Producer shall render a statement to the Association, in such detail as the Association shall prescribe, showing (1) the Producer's copper production during the preceding calendar month, and (2) all the Producer's export deliveries during the preceding calendar month, and (3) the Producer's copper production, as nearly as the Producer can estimate it, for the third succeeding calendar month, and (4) the Producer's copper available for sale through the Association, as nearly as the Producer can estimate it, for the third succeeding calendar month, and (5) such other information regarding export business as the Association, in its discretion, shall from time to time request. The statement so to be rendered at the date of this Agreement shall also show (6) the Producer's copper production, as nearly as the Producer can estimate it, for the current calendar month and for each of the two succeeding calendar months, and (7) the Producer's copper available for sale through the Association, as nearly as the Producer can estimate it, for the current calendar month and for each of the two succeeding calendar months. The Association shall procure orders for export copper upon such terms as it shall deem most advantageous, and shall allot its orders among all the members in proportion as nearly as possible to, but not in excess of, their respective copper available for sale through the Association as theretofore estimated by them as aforesaid, and so far as the Association consistently can, in such allotment, it shall comply with the reasonable requests of the Producer in respect of allotting to the Producer orders from the Producer's former customers. On or before the 25th day of each month, the Association shall render a statement to the Producer showing the orders for export copper allotted by the Association to the Producer for each of the three succeeding calendar months. If the orders so allotted by the Association to the Producer, for the calendar month next succeeding the rendition of such statement, shall be less than the Producer's copper available for sale through the Association for such month as theretofore estimated by the Producer as aforesaid, the Producer, at any time after the rendition of such statement, and upon notifying the Association in writing, shall be free to sell or dispose of such surplus in any manner, subject, always, to the provisions of paragraph "Second" hereof.

FOURTH.—From time to time the Board of Directors of the Association by resolution shall determine the monthly sum that shall, in their opinion, be requisite to provide for the necessary and reasonable expenses of the Association and the dividend requirements on its outstanding paid-in preferred stock, which monthly sum shall be assessed against all the members pro rata according to their respective export deliveries for said month. On or before the 15th day of each month, the Association shall render a statement to the Producer showing the Producer's export quota for the last preceding calendar month. The Association shall debit the Producer in said statement with the assessment against the Producer for said month. If during said month the value of the Producer's export deliveries, at the prices contracted therefor by the Association, shall have exceeded the Producer's export quota, the Association shall also debit the Producer in said statement with the amount of such excess. If during said month the Producer shall have become liable to the Association on account of any of the Producer's obligations to the Association hereunder, the Association shall also debit the Producer in said statement with the amount of such liability. If during said month the value of the Producer's export deliveries, at the prices contracted therefor by the Association, shall have been less than the Producers' export quota, the Association shall credit the Producer in said statement with such difference. Within five days after the rendition of said statement the Producer shall pay to the Association the excess, if any there be, of the debits over the credits shown therein; and within twenty days after the rendition of said statement

the Association shall pay to the Producer the excess, if any there be, of the credits over the debits shown therein.

FIFTH.—Upon breach of any of the provisions of this Agreement by the Producer, the Board of Directors of the Association by resolution may, and upon any termination or cessation of this Agreement shall, declare forfeited all rights of the Producer as a holder of stock of the Association without par value, and declare forfeited to the Association all rights of the Producer as a holder of said stock in the property of the Association, whereupon the Producer shall forfeit all said rights as aforesaid, and said Board of Directors by like resolution may cancel the certificate of said stock standing in the name of the Producer and said stock may be again issued as the Association sees fit.

SIXTH.—On or before the 15th day of February of each year, the Association shall render an account to the Producer showing the operations of the Association during the preceding calendar year. From the net amount resulting from such operations during said year, after providing for the Association's necessary and reasonable expenses, the Association shall retain an amount sufficient to pay the dividend requirements on its outstanding paid-in preferred stock. The balance remaining, if any there be, shall be credited to all the members pro rata according to their respective assessments for said year as a refund on said assessments, The Association shall pay to the Producer the amount of such refund within five days after the rendition of said account.

SEVENTH.—Each party hereto shall keep full and accurate books and records with reference to copper production, sales, export deliveries and all other transactions hereunder, and such books and records, together with all orders and contracts relating to export copper, shall at all reasonable times in business hours be open to the confidential inspection of certified public accountants designated and employed by both the parties hereto, or of representatives mutually agreed upon, so far as may be necessary for the purpose of verifying the statements to be rendered under this Agreement.

EIGHTH.—If any controversy shall arise hereunder between the parties hereto, such controversy shall be submitted, at the written request of either party, to three arbitrators, appointed as hereinafter provided, who shall have power to decide such controversy. The party so requesting the submission of such controversy to arbitrators shall, in his written request therefor, appoint one of said arbitrators. Within twenty days after the delivery of said request, the other party shall appoint one of said arbitrators; and if such other party shall not make such appointment within said twenty days, the party making such request may appoint the arbitrator which the party so failing to appoint would otherwise have been entitled to appoint. The two arbitrators so appointed shall appoint the third arbitrator; but in case of their failure to agree the third arbitrator shall be appointed by the then Chairman of the Federal Trade Commission. Said three arbitrators shall each have one vote upon all matters. No person who has at any time been a director, officer or employee of either of the parties may be appointed an arbitrator. Both parties shall be entitled to be heard before, and to submit testimony to, the arbitrators, who shall also have power to examine the books and records of the parties hereinbefore provided for in this Agreement, and to take any testimony they may desire. The expense of any arbitration hereunder shall be borne by the losing party or apportioned among the parties as the arbitrators may direct. Action by any two votes of the arbitrators shall be deemed the action of the arbitrators for all the purposes of such submission, and shall be final and binding upon both of the parties.

NINTH.—Performance by the parties hereto of their respective obligations hereunder shall be subject to delays resulting from strikes, fires, floods, explosions, unavoidable accidents, wars, insurrections, acts of God or the public enemy, Governmental demands, regulations or requirements, shortage of cars or motive power or any other traffic interruption, shortage of fuel, or restraint by injunction or other legal process from which relief cannot reasonably be obtained by giving security or other procedure. Performance by the Association of its obligations hereunder in respect of any payment to the Producer shall also be subject to delays resulting from any violation of, or excusing cause under, any contract upon which the Association shall have depended to obtain the means of such payment, or any other cause whatsoever which, being beyond the Association's control, shall disable the Association from making such payment. Performance by the Producer of its obligations hereunder in respect of accepting and carrying out orders for the Producer's export copper contracted for by the Association shall also be subject to delays resulting from any violation of, or excusing cause under, any contract upon which the Producer shall have depended to obtain such copper, or any other cause whatsoever which, being beyond the Producer's

control, shall disable the Producer from shipping or delivering the Producer's export copper so contracted for. If disabled for any of the causes above mentioned, the Producer shall, at the Association's written request, pursue and enforce any and all legal and equitable remedies therefor, at its own expense and for the Association's benefit and in the Producer's name or the Association's name, according as the Association shall direct.

TENTH.—Upon breach of any of the provisions of this Agreement by the Producer, the Board of Directors of the Association by resolution may declare this Agreement terminated, whereupon this Agreement shall terminate. Unless previously so terminated, either party hereto, on or after October 1, 1919, may give to the other three months' written notice of its desire to terminate this Agreement. After the giving of such notice, the Producer shall not be required to render any estimate of its future copper production or its copper available for sale, and shall not be restricted as to sales for export deliveries after said three months' period, and the Association shall make no allotment for export deliveries by the Producer after said three months' period. Upon the expiration of said three months' period this Agreement shall terminate. Termination of this Agreement as aforesaid shall not affect the obligations of the respective parties hereunder as regards any sale of the Producer's export copper theretofore contracted for by the Association or any other transaction hereunder occurring prior to such termination.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed, under their respective corporate seals, by their officers thereunto duly authorized, the day and year first above written.

By-----------------------------

Attest:

Secretary.

COPPER EXPORT ASSOCIATION, INC.,

By -----------------------------

Vice-President.

Attest:

Secretary.

EXHIBIT NO. 2108

Telephone 6056 John
Cable "GUEMONTA"

GILBERT H. MONTAGUE

COUNSELLOR AT LAW

40 Wall Street, New York

FEBRUARY 3, 1921.

HON. A. MITCHELL PALMER,
Attorney General of the United States,
Washington, D. C.

MY DEAR MR. ATTORNEY GENERAL: I have been continuously occupied in the trial of a jury case from 10 A. M. till 4:30 P. M. each day since my conversation in Washington with Hon. Frank K. Nebeker, Assistant to the Attorney General, at his office on Sunday January 30th, and this is my first opportunity to dictate the letter which I promised Judge Nebeker I would write you:

My client, Copper Export Association, Inc. is a Delaware corporation, organized December, 1918, under the Webb Export Trade Act, and at all times since has been engaged solely in export trade as defined in that Act. Organized originally merely to serve as selling agent in export trade for its members, the Association now purchases export copper and sells such export copper in export trade. So far as practicable, the Association apportions orders for export copper among its members in proportion to their export capacities. Every American copper producer has been invited to become a member of the Association and among the present members are American Smelting and Refining Company, Anaconda Copper Mining Company, Phelps-Dodge Corporation, Calumet and Hecla Mining Company, Greene Cananea Copper Company, Inspiration Consolidated Copper Company, Consolidated Coppermines Company, Utah Copper Company, Chino Copper Company, Nevada Consolidated Copper Company, Ray Consolidated Copper Company, International Smelting Company, North Butte

Mining Company, New Cornelia Copper Company; United Metals Selling Company, Calumet and Arizona Mining Company, United Verde Copper Company, United States Smelting, Refining and Mining Company, Arizona Copper Company, Utah Consolidated Mining Company, Kennecott Copper Corporation and Nichols Copper Company. These companies in the aggregate, it is estimated, produce over 80 percent of the total copper production of the United States. The Association is capitalized for 2,500 shares of preferred stock, $100 par value each, of which 1,000 shares have been issued and paid in, and for 500 shares of no par value, of which 22 have been issued, one to each member. The preferred stock is non-voting, but is entitled to dividends of 7% per annum. The common stock is entitled to no dividends, but each holder is entitled at any stockholders' meeting to one vote for each 500 tons of copper production of such holder. By agreement between the Association and its members, the Association undertakes to limit its commissions or profits to its actual expenses and the dividend requirements of its preferred stock, so that actually the Association is a non-profit-making institution obtaining for its members in the combined selling of export copper those savings in selling expenses and those advantages in export price which are the objects of the Webb Export Trade Act. For greater certainty, I refer to the enclosed copy of the Association's form of agreement with its members, dated as of June 15, 1920, and to the data contained in the various reports filed by the Association with the Federal Trade Commission during the past two years as required by the Webb Export Trade Act.

The American copper industry has for many years been dependent upon export trade. The Federal Trade Commission in 1916 reported (Report on Cooperation in American Export Trade, Part I, page 361), that "the United States produced about 56 per cent of the world's supply of copper and exports about three-quarters of its annual production". Figuring more conservatively, and expanding the annual production figures to include also copper mined in other countries and imported and thereafter smelted or refined within the United States, the following table of production and exports of copper (in tons of 2,000 pounds) during the normal period comprised in the six years immediately preceding the Great World War shows that more than half of the copper production of the United States thus computed goes into export trade:

Year	Production	Exports	Percentage of exports to production
1909	702,702	340,470	48.45
1910	726,061	361,216	49.75
1911	715,969	377,451	52.71
1912	790,960	373,198	47.18
1913	811,225	434,531	53.56
1914	682,475	369,066	54.08
Total	4,429,392	2,255,932	
Avg. per yr	738,232	375,988	50.93

Since the Association was organized in December, 1918, conditions in export trade in copper have been generally unsatisfactory. The copper production of the United States for 1919 was 884,000 tons and for 1920 786,500 tons, and had the exports for these years maintained the average of 50.93% which was the average of the pre-war period from 1909 to 1914, exports for 1919 would have been 450,221 tons and for 1920 would have been 400,564 tons, making a total for 1919 and 1920 of 850,785 tons. In fact, however, exports for 1919 were only 258,314 tons and for 1920 only 271,848 tons, making an aggregate of exports for 1919 and 1920 of only 530,162 tons, leaving a shortage of exports amounting to 320,623 tons for 1919 and 1920, as compared with the normal percentage established by the pre-war period above mentioned.

The Association's members in the aggregate have offered to the Association for export, each month since the organization of the Association, never less than 31,000 tons per month, and an average of over 43,800 tons per month. According to the Bureau of Foreign and Domestic Commerce, the total exports of copper from the United States during July, August, September and October, 1920, aggregated less than 66,000 tons, which is an average of less than 17,000 tons per month. This contrasts with the total exports of copper from the United States during the six months from January to July, 1920, aggregating over 206,000 tons, which was an average of over 34,300 tons per month. During this period of

July, August, September and October, 1920, the Association's members alone offered to the Association for export never less than 47,500 tons per month, which figure was raised to 49,250 tons per month during September and October, 1920, while the amount which the Association was able to sell in export trade, notwithstanding declining prices, was only 3387 tons for September, 1920 and 4470 tons for October 1920. These conditions were reflected in a drop in the price of electrolytic copper (in cents, per pound, F. O. B., New York) from 18.576 cents in July, 1920 to 12.125 cents on December 31, 1920, between which latter figure and 13 cents the price is still hovering. This is far below 16.167 cents, which the Federal Trade Commission found to be the average cost per pound of copper produced by eighty-five companies in 1918, when the rpice was fixed by the Government at 26 cents, and when the overhead items entering into the cost per pound had not been increased, as at present, because of curtailment of production. Not since 1911 has the average yearly price of copper been as low as now, and before 1911, the most recent years showing an average yearly price below the present were 1898 and 1902. How extraordinary is the present price appears from the following table showing the annual average price of electrolytic copper, (in cents, per pound, F. O. B. New York) from 1907 to 1920:

1907	20.004	1912	16.341	1917	27.180
1908	13.208	1913	15.269	1918	24.628
1909	12.982	1914	13.602	1919	18.691
1910	12.738	1915	17.275	1920	17.456
1911	12.376	1916	27.202		

Relative to cost of production, it is believed that copper has never been sold at lower figures than have prevailed during the past two months. Some of the Association's members, it may be stated in confidence, are fast approaching the breaking point, because of the Association's inability to dispose of the copper which they have been offering for export, and unless some mode of relieving the strain is found, not only may the Association break up, and the members be driven to cut-throat competition with each other in dumping their copper into export markets, but some of the members may perhaps be overtaken by most serious financial difficulties. Naturally, these facts cannot be made public.

To meet this situation, it is proposed that the Association immediately purchase 200,000 tons of copper, and against it issue, for eventual sale by public offering, debentures or other obligations of the Association in an aggregate amount of possibly upwards of $40,000,000 or $50,000,000, which obligations shall be payable in series of approximately one year, two years, three years, and perhaps four years respectively. This 200,000 tons is considerably less than the aggregate amount of copper offered by the Association's members to the Association for export during any of the five months of 1920. The Association must, of course, sell such copper solely in export trade.

According to the United States Geological Survey, stocks of copper on hand at smelters and refineries at the end of *1920* aggregated *436,500 tons*, as compared with 452,000 tons at the end of 1919 and 371,300 tons at the end of 1918, so that after the Association purchases 200,000 tons as above proposed, there will still be left at smelters and refineries within the United States available for domestic consumption 236,500 tons, which is more than 54% of the total stocks on hand at smelters and refineries within the United States at the end of 1920, and is nearly seven months supply for all domestic requirements if the latter maintain the average of the domestic consumption for 1919 and 1920, and is over eight months supply for all domestic requirements if the latter maintain the average of the domestic consumption for the pre-war period from 1909 to 1914. These figures, however, do not adequately show the supply left available for domestic consumption, because they show neither the new production which will come into the market in 1921, nor the enormous quantity of scrap, both of copper and brass, which is now in the market, and which will continue to come into the market, through reclamation of war material and other sources of scrap which no one can estimate. No computation of this scrap can be accurately made, but the figure merely for the United States, Great Britain, and France has been estimated by very conservative authority to be over 420,000 tons. New production coming into the market in 1921 can, however, be at least approximately estimated. Assuming that it will equal 835,250 tons, which was the average production for

1919 and 1920, this new production for 1921, added to the 236,500 tons remaining available for domestic consumption after the proposed purchase by the Association of 200,000 tons for export as above proposed, and disregarding the enormous but undetermined quantity of scrap available, would yield 1,071,750 tons as the total available for domestic consumption for 1921. That this will be more than adequate for all domestic requirements is apparent from the fact that the average domestic consumption for 1919 and 1920 was only 447,000 tons, and for the pre-war period from 1909 to 1914 was only 360,575 tons.

From the foregoing, it seems safe to assume that the purchase by the Association of 200,000 tons of copper for export as above proposed will in no way produce, or threaten, a scarcity of copper for domestic consumption within the United States, and that such purchase will accord with all the purposes of the Webb Export Trade Act. Because of the magnitude of the proposed transaction I have considered it my duty, as counsel for the Association, to inform the Government authorities having to do with the Webb Export Trade Act regarding the Association's intentions, so that any mystery which irresponsible comment in the newspapers and elsewhere may throw upon the matter may be dispelled, and that the Government may obtain first hand from the Association and from me the actual facts, particularly since many of the facts cannot without injury to the financial credit of some of the Association's members be fully published to the world, and may, intentionally or unintentionally, be misstated, or only partially stated, in irresponsible comment in the newspapers and elsewhere. If the transaction goes through, I shall send you further information regarding it. If now or in the future, you desire any information regarding any phase of it, I hope that you will avail yourself of the desire of the Association and myself to give you all the information within our power.

Very truly yours,

Gilbert H. Montague.

Exhibit No. 2109

[From the records of Copper Export Association, Inc., Certified correct.]

R. R. Eckert.
(R. R. Eckert)

Copper Export Association, Inc.,
New York, February 9th, 1921.

The National City Company,
55 Wall Street, New York.

Guaranty Company of New York,
140 Broadway, New York.

Dear Sirs: Copper Export Association, Inc., is a Delaware Corporation, organized December, 1918, and qualified under the Webb Export Trade Act to engage in export trade, as defined in that Act, and is carrying on such trade in copper, for the benefit of its members, who are its stockholders.

Among the present members and stockholders are companies, which, in the aggregate, represent about three quarters of the total copper production of the United States.

In order to stimulate, and at the same time to stabilize, the copper export trade, upon which the prosperity of the industry largely depends, Copper Export Association, Inc., proposes immediately to purchase 200,000 tons (of 2000 lbs.) of refined copper (electrolytic and/or lake) for resale in export trade, and against this copper to issue, for the purpose of financing the transaction, $40,000,000, face value, of Eight Per Cent. Secured Gold Notes.

The facts, and the purposes of the Association, in regard to this transaction have been fully disclosed and explained, both by letter and personal interview, to the Federal Trade Commission and to the Department of Justice, by our counsel, Mr. Gilbert H. Montague, and we are able to assure you, upon Mr. Montague's authority, that none of the Government officers consulted has expressed any opposition to the transaction or questioned its legality.

The 200,000 tons of refined copper will be forthwith sold to the Association by the following producing companies (hereinafter called the "Vendors"), and in substantially the following proportions, viz:

Vendors	Amount in Tons	Per Cent
Anaconda Copper Mining Co		31.5
Phelps-Dodge Corporation		10.9
Calumet & Hecla Mining Co		6.0
Chile Exploration Co		7.58
Kennecott Copper Corporation		5.06
Braden Copper Co		5.95
Utah Copper Co		8.2
Ray Consolidated Copper Co		4.0
Chino Copper Co		3.66
Nevada Consolidated Copper Co		4.45
United Verde Copper Co		5.0
American Smelting & Refining Co		5.0
To be allotted		2.7
	200,000 tons	100%

The Association will acquire absolute title to the said 200,000 tons of refined copper, free and clear of liens, incumbrances or charges of any kind.

At the time of such acquisition of title none of the copper will be physically in the possession of any of the Vendors, but all of it will be located on the premises of some or all of the following named companies at the following places, viz:

Name	Place
Raritan Copper Co	Raritan, N. J.
Baltimore Copper Smelting & Rolling Co	Baltimore, Md.
Lake Superior Smelting Co	Hubbell, Mich., and Dollar Bay, Mich.
Nichols Copper Co	Brooklyn, N. Y.
United States Metals Refining Co	Chrome, N. J.
American Smelters Securities Co	Tacoma, Wash.

Except not exceeding 14,000,000 lbs. of copper belonging to the Calumet and Hecla Mining Company and located on its premises at Hubbell, Michigan.

The above named companies (hereinafter referred to as the "Refineries") and the Calumet and Hecla Mining Company will issue to the Association, or its assigns, their Receipts for the amounts of said refined copper held by them respectively, which receipts will be so worded that the refined copper represented thereby can only be withdrawn upon presentation of such receipts for notation thereon of any amounts taken out. Such copper (except the above mentioned 14,000,000 lbs. belonging to the Calumet and Hecla Company which will be suitably marked) will be segregated and fenced off on the premises of the respective refineries, and such fences will bear the name of the Association as Owner, and of the Trustee, hereinafter named, as Pledgee, conspicuously painted thereon.

In order to provide for the purchase of said copper by the Association from the Vendors, and for the issuance of said Receipts, and for the payment to the Vendors, ratably, on account of the purchase price of said copper, of the proceeds of the Association's Eight Per Cent. Secured Gold Notes, and for other matters, it is proposed that the Association and the Vendors shall forthwith enter into an Agreement, substantially in the form annexed, marked "Schedule A", to which the Trustee for said issue of Eight Per Cent. Secured Gold Notes shall likewise be a party, and to the making of which all members of the Association, other than the Vendors, shall consent in writing.

The said $40,000,000, Eight Per Cent, Secured Gold Notes will all be dated February 15, 1921, and will mature in four annual installments as follows:

Series A, $6,000,000 due Feb. 15, 1922.
Series B, $10,000,000 " Feb. 15, 1923.
Series C, $12,000,000 " Feb. 15, 1924.
Series D, $12,000,000 " Feb. 15, 1925.

The Notes will be in coupon form, of the principal amount of $1,000 each, registerable as to principal only, payable in United States gold coin of the present standard of weight and fineness, bearing interest from February 15, 1921, at the rate of eight per cent. per annum, payable semi-annually on February 15, and August 15 each year.

Both principal and interest will be payable at the principal office of Guaranty Trust Company of New York, in the Borough of Manhattan, City of New York, without deduction for any taxes, assessments or impositions which the Association or the Trustee may be required or authorized to pay thereon or to retain or deduct therefrom under any present or future law whatsoever, except Inheritance Taxes, State Income Taxes, and any Federal Income Tax.

The Association shall have the right to redeem all or any part of the Notes, prior to maturity, on any interest date, upon thirty days prior published notice, at 101 for Notes maturing six or twelve months after the date of redemption; 102 for Notes maturing eighteen or twenty-four months after such date; 103 for Notes maturing thirty or thirty-six months after such date; and 104 for Notes maturing more than thirty-six months after such date; and in each case, upon payment of the accrued interest. Whenever the Association elects to redeem less than all of the Notes of any Series, those to be redeemed shall be selected by lot by the Trustee.

To provide for the said issue of Notes, and to cover the terms upon which the same shall be issued, secured and held, the Association will execute and deliver a Trust Agreement to Guaranty Trust Company of New York, as Trustee, and will pledge thereunder the said Receipts and the copper represented thereby. The Trust Agreement will make satisfactory provision for the following matters and conditions, among others, viz:

1. That the Association will pay and discharge, or cause to be paid and discharged, promptly, when due, or forthwith at any time, on demand of the Trustee, all storage and warehouse charges and other expenses relating to the custody, preservation, protection and handling of the copper, and will, at its own expense, replace, and deliver similar receipts to the Trustee for, any such copper which may be lost, destroyed or stolen, to the end that at all times the Trustee shall hold receipts for not less than 10,000 lbs. of refined copper (electrolytic and/or lake) for each $1,000 face value of Notes outstanding and unpaid.

2. That the Association will not create or issue any other issues of notes, debentures or bonds, or other funded obligations, or make or issue any note or obligation of any other character, save and except for moneys borrowed in the ordinary course of conducting its own business and payable in not exceeding twelve months.

3. That the Association will preserve its corporate existence, rights and franchises and comply with the laws of Delaware and with the Act of Congress entitled, "An Act to Promote Export Trade and for Other Purposes," approved April 10, 1918, and with any Acts amendatory thereof and supplemental thereto, and with all lawful regulations, orders and requirements of the Federal Trade Commission, and of any other State or Governmental authority, applicable to the Association, and will not do, suffer or permit any act or thing whatsoever whereby its corporate existence, rights and franchises, or its rights in regard to carrying on export trade as defined in said Webb Act, might or could be forfeited or imperilled, or whereby the payment of the Notes might or could be hindered, delayed or imperilled, or the security therefor impaired.

4. That as it makes deliveries of refined copper in export sales, the Association will withdraw pledged copper and make payment to the Trustee therefor to the extent of at least one third of all such deliveries made in each quarterly period from and after the date of the Trust Agreement; and that within twenty days after the close of each such period it will file with the Trustee a statement showing in reasonable detail all deliveries made by it during such period, which statement shall be certified to be correct by the President or a Vice-President or the Treasurer of the Association.

5. That the Association may at any time withdraw any part of the pledged copper by paying to the Trustee in cash twelve and one-half cents for each pound which it desires to withdraw, whereupon the Trustee shall allow such amount of copper to be taken out of any particular lot or lots which the Association may designate, and shall cause the corresponding Receipt or Receipts to be indorsed accordingly; and that in lieu of cash the Association may at any time deliver to the Trustee an equivalent amount in Notes taken at their face value, which Notes shall be cancelled by the Trustee and not reissued.

6. That moneys received by the Trustee against withdrawals of the copper at the said rate of twelve and one-half cents per pound, shall be held by it as security for the Notes until applied to the payment, purchase or redemption of Notes and Coupons. The Trustee shall credit the money so received to an Interest Fund, until it holds enough in said Fund to pay the coupons next maturing on all Notes outstanding, after which it shall credit any additional money so received to a Principal Fund, until there shall again be less to the credit of the Interest Fund

than is required to pay the coupons next maturing on all Notes outstanding, whereupon it shall once more credit the Interest Fund until said coupons next maturing are provided for, when it shall again credit all additional sums so received to the Principal Fund. With such moneys the Trustee shall have the right at any time to purchase Notes in the open market at not exceeding their face value and accrued interest, charging any accrued interest paid to the Interest Fund and the price paid on account of principal of such Notes to the Principal Fund, but any such purchases by the Trustee shall always be of Notes of the Series next maturing, unless otherwise specifically authorized and directed in writing by the Association, provided, that no Notes of any Series other than that next maturing shall be purchased by the Trustee, pursuant to any such authorization or direction of the Association, if thereby the amount to the Credit of the Principal Fund and/or the Interest Fund will be depleted below the amount required for the payment of the Notes and coupons next maturing. Any notes and coupons purchased by the trustee shall forthwith be cancelled. Upon any interest date the Trustee on the written request of the Association will apply any balance in the Interest Fund to the payment of the interest coupons then maturing, and upon any due date of principal the Trustee, on like request, will apply any balance in the Principal Fund to the payment of the principal of any of the Notes then maturing. Whenever the Association shall call any of the Notes for redemption on an interest date, the Trustee, on like request, will apply any balance in the Principal Fund and Interest Fund, respectively, in excess of the amount required for the payment of the Notes and coupons next maturing, towards the payment of the principal and accrued interest of the Notes called for redemption, provided the Association shall furnish out of its own funds any premium payable on the said Notes and any additional sums required to effect such redemption.

7. The Association shall have the right at any time, to buy Notes of this issue and to hold and resell the same.

8. In case the Association shall default in the payment of interest on any Note or Notes, and such default shall continue for thirty days, or shall default in the payment of any Note or Notes at maturity, or shall default in the performance or observance of any other covenant or condition for thirty days after notice and demand from the Trustee, or in the event of any voluntary or involuntary liquidation or dissolution of the Association or the appointment of a Receiver of its property, the Trustee may, and upon request of twenty-five per cent in amount of the Notes shall, declare the principal of all the Notes to be due. With or without such declaration the Trustee, in the event of any such default, shall have the right to proceed against the Vendors under their covenants in their Agreement with the Association and the Trustee, or the unrestricted right to sell the pledged copper, or so much thereof as may be necessary, with or without notice, or to institute such proceedings at law in equity as it may deem proper; no one of said remedies being exclusive of any other.

Copper Export Association, Inc., hereby offers to sell you the above described $40,000,000, principal amount, of Eight Per Cent Secured Gold Notes, at——— of their face value, and accrued interest, payable against delivery thereof.

Temporary Notes, exchangeable for the Definitive Notes when prepared, will be ready for delivery to you on or before February 21, 1921. You shall have the option to extend the time for delivery as to all or any part of the Notes for a further period of not exceeding fifteen days thereafter.

In the event that all details in connection with the transfer of title to the copper to the Association and the pledge thereof to the Trustee, in the manner herein contemplated cannot be concluded by the date set for delivery of the Notes to you, it is understood that the Notes will be issued and will be accepted by you against the deposit of cash with the Trustee at the rate of 10¢ per pound for all copper the title to which has not thus been transferred, and that the Trust Agreement will make provision for this and for the payment of the deposited cash to the Association as soon as such copper shall have been so transferred and pledged, to the satisfaction of your counsel.

The foregoing enumeration of particular provisions in the Note and Trust Agreement is not intended to be exclusive, and the attached draft of agreement between the Association, the Vendors and the Trustee is not final, it being understood and agreed, as a condition of your obligation to purchase the Notes, that the form and provisions of the Notes, Coupons, Trust Agreement, receipts for copper, Agreement between the Association, the Vendors and the Trustee, and other papers, and all matters relating to the Association's title to and pledge of the refined copper, and all corporate proceedings of the Association and of the

respective Vendors, and all questions relating to the compliance by the Association with the terms of the Webb Act, and other legal matters in connection with this transaction, shall be subject to the approval of Messrs. Shearman & Sterling, and Messrs. Stetson, Jennings & Russell, as counsel for yourselves and for the Trustee.

All expenses in connection with the issuance of the Notes and the carrying out of this transaction, including stamp tax, and the reasonable charges of your counsel, will be paid by us.

We agree to furnish you, as called for from time to time, upon reasonable notice, such information, statements, certificates and reports as may be required to comply with the laws of the various States in regard to the offering and sale of these Notes.

We will also furnish you a descriptive letter in form satisfactory to you, signed by the President of the Association, for your use in connection with the offering of the Notes.

We will also furnish each of you copies of all our quarterly reports to the Trustee of our deliveries against export sales.

This offer is submitted for your immediate acceptance.

Yours very truly,

COPPER EXPORT ASSOCIATION, INC.,
(Signed) JOHN D. RYAN, *President.*

NEW YORK, *February 9, 1921.*

COPPER EXPORT ASSOCIATION, INC.,
New York.

DEAR SIRS: We beg to acknowledge the receipt of your letter of even date, offering to sell us $40,000,000, 8% Gold Secured Notes at   of their face value and accrued interest from February 15th, 1921.

We hereby accept your offer in accordance with the terms stated therein.

Yours truly,

NATIONAL CITY COMPANY,
(Signed) C. E. MITCHELL, *President.*
GUARANTY COMPANY OF NEW YORK,
(Signed) H. STANLEY, *Vice President.*

EXHIBIT No. 2110

Crude Copper Production of Principal United States Copper Companies Arranged According to Their Relationship to Copper Export Association, Inc., Monthly, January 1921–June 1922

[In pounds]

Company	1921								
	January	February	March	April	May	June	July	August	September
Total, principal companies	70, 232, 133	67, 546, 983	75, 160, 442	31, 039, 667	12, 490, 091	9, 802, 084	9, 843, 707	10, 344, 092	9, 981, 729
Members of Copper Export Assn. Inc: Total	56, 295, 084	54, 643, 006	62, 427, 349	20, 190, 556	4, 806, 763	3, 001, 529	3, 095, 200	3, 068, 487	3, 051, 175
Anaconda	9, 136, 790	8, 191, 477	11, 325, 623	3, 683, 846					
Arizona Copper	2, 300, 000	2, 000, 000	2, 000, 000	2, 000, 000	2, 000, 000				
Calumet & Arizona	2, 438, 000	3, 330, 000	3, 455, 672	2, 204, 000					
Calumet & Hecla	7, 234, 300	7, 395, 084	9, 147, 000						
Chino	2, 846, 761	2, 912, 798	2, 797, 310	567, 248					
Inspiration	5, 000, 000	4, 500, 000	5, 000, 000	1, 050, 000					
Mother Lode Coalition	1, 487, 224	1, 541, 687	1, 565, 285	1, 428, 215	1, 478, 763	1, 584, 130	1, 592, 200	1, 556, 523	1, 523, 175
Nevada Consolidated	3, 000, 638	3, 012, 201	3, 051, 243	298, 243					
New Cornelia	2, 170, 000	1, 975, 918	2, 220, 186	1, 864, 772	1, 328, 000	1, 417, 399	1, 503, 000	1, 511, 964	1, 528, 000
North Butte	445, 290	433, 941	350, 369						
Phelps Dodge	6, 339, 000	5, 712, 000	6, 959, 000	1, 461, 000					
Ray Consolidated	2, 908, 565	2, 854, 881	2, 774, 674	1, 546, 535					
United Verde	3, 500, 000	3, 450, 000	4, 115, 000	2, 606, 000					
Utah Copper	7, 488, 516	7, 333, 019	7, 665, 987	1, 480, 697					
Non-members selling through members of Copper Export Assn. Inc: Total	6, 641, 912	5, 831, 942	5, 800, 390	4, 076, 746					
Arizona Commercial									
Magma	600, 000	600, 000	650, 000						
Old Dominion	2, 822, 000	1, 882, 000	2, 199, 000	984, 000					
United Verde Extension	3, 219, 912	3, 349, 942	2, 951, 390	3, 092, 746					
Non-members of Copper Export Association, Inc.: Total	7, 295, 137	7, 072, 035	6, 932, 703	6, 772, 365	7, 683, 328	6, 800, 555	6, 748, 507	7, 275, 605	6, 930, 554
East Butte	1, 600, 000	1, 500, 000	985, 580	1, 044, 940	1, 726, 036	1, 600, 000	1, 196, 000	1, 278, 000	938, 000
Miami	4, 391, 715	4, 200, 101	4, 470, 602	4, 262, 625	4, 580, 030	3, 795, 616	4, 101, 678	4, 278, 869	4, 288, 736
Mohawk	976, 790	1, 069, 270	1, 135, 859	1, 046, 349	980, 759	1, 083, 586	1, 128, 625	1, 349, 714	1, 344, 510
Wolverine	326, 632	302, 664	340, 662	418, 451	396, 503	321, 353	322, 204	369, 022	359, 308

Company	1921			1922					
	October	November	December	January	February	March	April	May	June
Total, principal companies	11, 600, 984	10, 401, 988	11, 453, 346	11, 497, 619	28, 476, 123	40, 488, 468	57, 633, 865	77, 548, 358	81, 544, 552
Members of Copper Export Assn. Inc.: Total	3, 067, 230	3, 208, 004	3, 728, 164	4, 043, 775	21, 016, 291	30, 468, 100	45, 080, 606	64, 077, 351	67, 781, 828
Anaconda					9, 348, 895	12, 293, 216	14, 514, 764	17, 496, 829	14, 364, 519
Arizona Copper									
Calumet & Arizona					2, 462, 000	3, 132, 000	3, 756, 000	3, 566, 000	3, 362, 000
Calumet & Hecla							4, 034, 000	6, 836, 000	7, 082, 000
Chino							1, 140, 979	1, 670, 684	3, 840, 511
Inspiration				483, 813	1, 468, 773	5, 763, 361	5, 866, 151	7, 109, 892	6, 370, 849
Mother Lode Coalition	1, 531, 230	1, 602, 004	2, 011. 164	1, 915, 863	2, 071, 951	2, 017, 035	2, 021, 601	2, 087, 029	2, 142, 177
Nevada Consolidated							2, 145, 892	5, 103, 277	4, 286, 741
New Cornelia	1, 536, 000	1, 606, 000	1, 718, 000	1, 602, 000	1, 460, 000	1, 682, 579	1, 496, 000	1, 544, 000	1, 566, 000
North Butte				42, 099	112, 672	39, 909	35, 250	219, 855	655, 851
Phelps Dodge					4, 092, 000	5, 540, 000	5, 882, 000	6, 880, 000	7, 512, 000
Ray Consolidated							731, 306	2, 052, 544	2, 840, 393
United Verde								774, 000	4, 620, 000
Utah Copper							3, 456, 663	8, 737, 241	9, 138, 787
Non-members selling through members of Copper Export Assn. Inc.: Total					646, 000	2, 464, 000	5, 106, 902	5, 480, 136	5, 811, 054
Arizona Commercial						450, 000	425, 000	719, 000	823, 000
Magma									
Old Dominion							1, 164, 000	1, 971, 000	2, 047, 000
United Verde Extension					646, 000	2, 014, 000	3, 517, 902	2, 790, 136	2, 941, 054
Non-members of Copper Export Association, Inc.: Total	8, 533, 754	7, 193, 984	7, 725, 182	7, 453, 844	6, 813, 832	7, 556, 368	7, 446, 357	7, 990, 871	7, 951, 670
East Butte	1, 638, 000	1, 016, 000	792, 000	702, 000	592, 000	724, 000	706, 000	1, 092, 000	866, 000
Miami	5, 374, 583	4, 587, 798	5, 131, 097	5, 348, 000	4, 918, 000	5, 242, 000	5, 327, 000	5, 546, 000	5, 923, 000
Mohawk	1, 210, 631	1, 285, 448	1, 442, 694	1, 095, 946	963, 406	1, 252, 492	1, 084, 554	1, 065, 403	866, 074
Wolverine	310, 540	304, 738	359, 391	307, 898	340, 426	337, 876	328, 803	287, 468	296, 596

Source: Production from American Bureau of Metal Statistics' Yearbooks for 1921 and 1922; list showing relationship of companies to Copper Export Association, Inc., prepared by R. R. Eckert, former manager of Copper Export Association, Inc.

EXHIBIT NO. 2111

[New York Herald Tribune, January 1, 1922]

COPPER BUYING EXPECTED TO BE HEAVY THIS YEAR—ELECTRICAL INDUSTRY REGARDED AS IN ITS INFANCY, WILL TAKE LARGE SUPPLIES, AGASSIZ PREDICTS

By R. L. Agassiz, President Calumet and Hecla Mining Company; President Copper and Brass Research Association

All American industries have had problems more or less grave to face since the termination of the World War. Naturally those dealing in the essentials of our national life are recovering more quickly. Those whose return to normal and whose continued development depend in some measure on the resumption of healthy economic conditions abroad still have struggles ahead of them. On the whole, however, I think our country has never in its entire history witnessed a finer exhibition of industrial courage than that presented by Amercan business men since the day of the armistice, when they faced a sadly flattened out world, in the rehabilitation of which they knew they had to play a leading part.

The experience of copper and its products during these trying years may be said to be typical of the sort of battles our American leaders of industry have had to fight. Copper and its chief alloys, brass and bronze, actually are essentials, yet their development over the twenty-five-year period, beginning with 1895, brought about an investment of capital in mining properties that could not possibly earn a decent living for itself without a steady maintenance of foreign demand. Even if domestic consumption had speedily returned to normal, which it did not, there still would have been grave problems to face, because it must be kept in mind that you cannot work great mining properties on a fragmentary basis without so greatly increasing the cost of production that it is not possible to market your metal at a profit.

The copper industry is not a charitable institution. Neither is it a mendicant. Having plenty of copper in a refined state for any domestic or foreign demand that was likely to materialize, it closed most of the mines, and today only a few properties actually are operating. How soon the mines will again open is a question I shall not attempt to answer. It is a matter that must be carefully studied, keeping in mind the thought that if a reopening of the vast producing properties anticipates a demand, which later fails to manifest itself, the industry is in danger of again creating the very condition that it has been wrestling with for the last three years.

NOT OVERPRODUCTION

This condition has been referred to from time to time as one of over-production. Actually it is a condition of under-consumption, in part brought about in this country by the substitution of cheaper metals and materials during the war period, when copper, brass and bronze were not to be had for commercial purposes, and in Europe by a lack of funds wherewith to buy our metals. Domestically the situation is steadily improving. Slowly but surely copper, brass, bronze, and copper products generally are coming back into their own. Europe will buy when Europe has money. Meanwhile, as is well known, the copper producing interests, through the agency of the Copper Export Association, have done all that they could to help out the stricken nations across the water with the raw materials to start some of their industries moving.

In building enterprises copper and brass have a place that cannot profitably be taken by substitutes, just as other metals and materials have places in commonsense construction work that copper and its products would not expect to fill. This is gradually coming to be understood by those who put their money into building enterprises, and it is one of many encouraging developments of the last eighteen months. The orgy of cheap substitution seems to be disappearing, and not only in building but in other forms of investment our people are realizing that there is no real economy in short-lived materials which require constant upkeep and replacement charges, no matter how attractive and tempting the slightly lower initial cost may be.

The electrical industry is regarded to-day by experts as being in its infancy however marvelous the developments of the last two decades may seem to most of us. Copper has run side by side with American inventive genius in bringing this great industry where it is at present.

LARGE ABSORPTION LIKELY

The two are inseparable, and we may expect a continued large absorption of copper, as present electrical enterprises expand and new ventures in this field are started. Not only in this country but in South America and Europe we hear with great frequency nowadays of new projects having electrical power for their base being undertaken. Within a month announcement was made that the telephone interests of the United States would spend $80,000,000 during the coming year for additional equipment, a large part of which necessarily will be copper.

Chile, a few weeks ago, placed a $7,000,000 order in this country for materials to be used in the electrification of her railways, and Japan, which has 6,000 miles of government controlled railways, began a program of electrification by placing a $5,000,000 order here. We also know that Italy, Switzerland and Holland are committed ot similar enterprises; from all of which we may reasonably infer that before many years all over the civilized world vast projects will be undertaken in which electrical power will play an important part.

Also those who are perhaps better versed in great problems of economics that I, feel that if the limitation of armaments program becomes effective, it will mean the release of many millions of dollars for new commercial enterprises. In any such development of the world's industrial structure copper, brass and bronze are certain to play profitable roles, for copper and its alloys still are among the leading metals of commerce, made so by those peculair and exclusive qualities bestowed by nature.

TWO INDUSTRIES LINKED

War's aftermath brought with it certain unusual cohesions in industry. Before the war the relations of the producer and consumer of copper were merely those of seller and buyer, nothing more. To-day, through the organization of the Copper and Brass Research Association, these two great American industries have been brought together, and producer and consumer present a united front. This has been done without the slightest interference with competitive effort, individual initiative or individual enterprise. The association represents a co-operative effort, largely educational, to bring a more widespread understanding of the manifold uses to which copper, brass and bronze can be applied, to the advantage and profit of the user.

In every country there are certain great industries which, although privately owned, are so important a part of the national fabric that the collapse of any one of them would be little short of disastrous to the whole. Our American railroads represent one of these. Steel represents another. Copper is a third.

It is not possible for me to estimate the amount of invested capital that the copper producing and copper and brass fabricating and manufacturing industries represent, but we may safely place it at several hundreds of millions of dollars The growth of these industries has played its part in the development of American genius, so that when a demand for copper far in excess of what the country could supply manifested itself not so many years ago American brains were prompt to find ways and means of meeting it.

To this we owe the great advances that have been made in the mining and metallurgical arts which make it possible profitably to work low-grade ores that twenty-five years ago no man would think of bothering with. To this we also owe the present day development of the electrical industry.

MOMENTOUS DECISION

It was no simple matter to close down the copper mines of the country. It was a momentous decision, carefully thought out, and carried into effect with the greatest reluctance. It meant loss of employment to thousands of men for an indefinite period, a class of men, unfortunately, who are least able to stand up against such reverses. Many of the men thus thrown out of employment had spent their lives in the copper regions, had built their homes and raised their families there. If there had been any possible way to avert the situation it would have been followed, but there was not.

There had to be a shut-down if the peculiar conditions facing the copper industry were to be met. Copper and brass found themselves almost entirely supplanted at the close of the war, not through any fault of their own or through any loss in merit or reputation, but solely because their need in munitions forced them out of commerce for several years, and then sent them back heavily stocked with expensively produced metal to battle with the substitutes which had invaded their fields while they were in war service.

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Very naturally, the copper industry is looking for an expansion of its domestic markets pending the time when Europe is again in a position to take its share of American copper. We are not at all pessimistic about the future. We not only feel that our own country is approaching its normal condition, with great building and electrical enterprises to be undertaken but we feel that Europe will in time work out its problems and once more enter the American market for its share of the copper which it must have if its natural needs are to be taken care of.

EXHIBIT No. 2112

G-1 NEW YORK, *March 29th, 1921.*

To the Shareholders of the Anaconda Copper Mining Company:

At a meeting of your Directors held today, it was decided to temporarily suspend the production of copper from the mines of your Company.

This action was taken with regret, and only after deliberate consideration compelled the conclusion that under existing conditions no other course was advisable.

That you may be informed of the necessity for such action, a brief statement of the conditions under which production has been maintained, and the business of your Company conducted, is submitted.

At the close of the war an agreement existed between the Government and the copper producers, which fixed the price of copper, and presciibed the working conditions under which it should be produced to the end of 1918. Immediately after the armistice, at the request of the Government, it was agreed that production should be continued at the then current rate, until the end of the year.

After January 1, 1919, production was curtailed; in February, wages were reduced by agreement between the copper producers, their employees and the Federal Department of Labor, approximately fifteen per cent. Later, in July living costs having continued to increase, and the metal markets having improved, the wage scale was restored, and continued in effect until January 1921, when a reduction of approximately fifteen per cent. was made.

During 1919, while the export demand was limited, there was a large domestic consumption of copper. Toward the end of the year a good buying movement, both domestic and foreign, occurred, which carried over into 1920, and apparently justified the expectation that business for the yaer would show a satisfactory rate of consumption.

After January 1, 1920, and during the first eight months stocks showed a satisfactory decline, when, on account of the general cessation of business activity in this country, the industrial collapse in the Orient and the general unsatisfactory business and political situation in Europe, the trade was adversely affected, and notwithstanding the general curtailment throughout the industry, with but few exceptions, to approximately forty per cent. of normal production, stocks began to increase, and have steadily accumulated.

The average production of copper from the reduction works of your Company, during the years 1916, 1917 and 1918, equalled 292,752,406 pounds. The average for the years 1919 and 1920 equalled 148,120,998 pounds. This decrease in production, with the enormous increase in freight rates, and the cost of fuel and other supplies, has resulted in an excessive cost of production, while at the same time the price has decreased to beneath the level of pre-war prices, resulting in serious loss on metal sold.

Under these circumstances, there being no improvement in sight, the stock of metals carried being as large as your Directors feel warranted in having the Company finance, the loss on metals sold being greater than can be long sustained, it is believed that in order to conserve the property of the Company and prevent the depletion of its ore reserves, the situation had reached the point where the complete suspension of production is necessary for the present.

The mines and plants of your Company are in good condition, and can and will be so kept that a normal production at reasonable cost can be speedily made whenever there is sufficient improvement in the business situation to warrant an output on an economic basis.

JOHN D. RYAN,
Chairman of the Board.

Exhibit No. 2113

Share of stocks of refined copper in North and South America held in pooling arrangement by Copper Export Association, Inc., monthly, 1921–1923

[Amount in short tons]

Year and month	Total refined stocks, first of month	Pooled for sale in export trade	
		Amount	Per cent of total
1921			
January	320,737	-----------	-----------
February	346,977	-----------	-----------
March	359,994	200,000	55.6
April	366,099	200,000	54.6
May	373,609	200,000	53.5
June	367,874	200,000	54.4
July	364,235	200,000	54.9
August	354,389	200,000	56.4
September	340,899	194,225	57.0
October	325,261	194,225	59.7
November	307,256	176,525	57.5
December	281,308	176,525	62.8
1922			
January	267,968	176,525	65.9
February	260,018	148,525	57.1
March	247,706	135,625	54.8
April	230,659	126,405	54.8
May	216,820	126,405	58.3
June	206,212	126,405	61.3
July	183,714	126,405	68.8
August	165,939	107,085	64.5
September	158,283	99,475	62.8
October	156,212	95,305	61.0
November	140,865	88,840	63.1
December	142,705	88,840	62.3
1923			
January	149,393	88,840	59.5
February	134,153	73,005	54.4
March	125,484	62,275	49.6
April	114,336	31,523	27.6
May	104,828	19,988	19.1
June	102,398	11,672	11.4
July	98,846	5,717	5.8
August	106,811	2,065	1.9
September	106,790	-----------	-----------
October	126,549	-----------	-----------
November	137,089	-----------	-----------
December	131,953	-----------	-----------

Source: Prepared by the staff of the T. N. E. C. from figures compiled by R. R. Eckert, former manager of Copper Export Association, Inc.

Exhibit No. 2114

United States of America

department of justice

February 13, 1940.

Pursuant to Title 28, Section 661, U. S. Code (Sec. 882, Revised Statutes), I hereby certify that the annexed paper is a true copy of the original record in this Department of a nine (9) page list of copies of cables to Berlin, prepared by the Copper Export Association.

In witness whereof, I have hereunto set my hand, and caused the seal of the Department of Justice to be affixed, on the day and year first above written.

[SEAL] F. D. Quinn,

Administrative Assistant to the Attorney General.

Copper Export Association, inc.,
#25 Broadway, New York City.

June 29th, 1922.

COPIES OF CABLES TO BERLIN

02145 DEC. 2ND, 1919. 9:30 P. M.

Firmer feeling here seems have reached bottom. We are looking for general buying movement here and abroad in the near future which will most probably take a large quantity. Price having receded six cents per pound, reaction seems assured. All large consumers here and elsewhere having kept out market, must buy largely for first quarter. Consumers here very busy, consumption here double prewar.

08149 DEC. 8TH, 1919. 6:00 P. M.

Market full half cent higher going strong. Continue discretion suggest restricting sales not over 500 tons daily.

03170 JANUARY 3, 1920. 3:30 P. M.

Market here 19½ to ½ demand continues good Paris getting 20¢ to 21¢ London average 20½ this for your private information only We want continue selling and meeting competition.

06173 JANUARY 6, 1920.

Dealers bidding 20 to 20½ f. o. b. for export.

07207. FEBRUARY 7, 1920.

Market here unsettled because of exchange expect improvements in the near future average price 19 cents. Speculators are selling out small quantities February 18½ cents to 13¾ cents. Your prices most satisfactory but do not hold above competitors.

27246. MARCH 27, 1920.

We have offered Finspongs 200 tons 19¾ cents same as Svenska. Active demand here 19 cents higher prices inevitable hold 20 cents including July shipment if necessary but sell sparingly July shipment acknowlege receipt.

03251. APRIL 3, 1920. 5:00 P. M.

Demand here very large consumption continues on record scale sales March 160,000 tons price here 19¼ We think 20 cents fully warranted but at your discretion meet competition down to 19¾ cents. Referring to your cable 82 what will be the rate of insurance in what companies can you insure if necessary you may insure unless rate prohibitory. We have shipped Dornach 25¼ tons cakes Lapland, referring to specification 87 50 tons cakes S/S Kerlew.

30273 APRIL 20TH, 1920. 4:00 P. M.

Refineries output largely curtailed by railway situation despair of selling any improvement for some time to come copper market here is firm none forcing market small quantities outsiders possibly obtainable 18⅞¢ New York nearby deliveries.

21292 MAY 21, 1920.

We are not very anxious about the present situation London market it will run its course and in due time we shall do business there. Meantime we have withdrawn from the market and are not meeting competition stop. We feel differently with regard to your market and authorize you to meet any fair competition on a conservative basis for June/July shipments down to 19¼¢ CIF Hamburg usual extra Scandanavia stop. Refineries at New York still short of blister account of transportation delays production for April May 50% of normal

stop. We shall rely on you to act very cautiously and are willing that you act according to your best judgement.

10380 SEPTEMBER 10, 1920. 5:00 P. M.

Small quantity second hand copper pressing market here, with which producers are not competing. We believe fundamental conditions sound. Your sales are satisfactory.

04423 NOVEMBER 4, 1920. 5:00 P. M.

Referring to your cable 03260 suggest competing actively with dealers meet competition down to 15¼¢. We would prefer undersell them slightly then run the risk of losing business. Sales here during the month of October 75,000 tons.

05426 NOVEMBER 5, 1920. 6:00 P. M.

There is a great improvement situation; there is a large demand here and abroad. We have increased Paris 15¼ November shipments, 15⅜ December shipment, 15½ January shipment. We do not wish tie your hands. At your discretion do best possible but sell. Our impressions is your competitors are not free sellers, anticipating higher market. We authorize you to sell 1000 tons each Nov./Dec./Jan. shipments.

16432 NOVEMBER 16, 1920. 5:00 P. M.

Cancel our previous instructions: You may sell 1000 tons each, December shipment 15¢ per lb. January shipment 15⅛¢. February shipment 15¼¢ until Monday.

08474 JANUARY 8, 1920. 1:30 P. M.

There is movement on foot take large quantity copper off market actual sale decision expected in the near future. For your private information only.

15482 JANUARY 15, 1921. 1:00 P. M.

You may sell January shipment 13⅜, February shipment 13½, March shipment 13⅝ total amount 1,000 tons. Watch the market very closely; telegraph immediately if our price above the market price.

17483 JANUARY 17, 1921. 5:00 P. M.

Meet competition. You may sell total amount 1,000 tons. Stop. Referring to your cable No. 318, Fedrazione, 7% Braden you may sell Mar./Apr. shipment Valparaiso 13¢ CIF Genoa.

29496 JANUARY 29, 1921. 3:30 P. M.

S/S Bologna prefer store Genoa rather than sell now under 13¼. Please arrange accordingly. We expect considerable advance in the near future. Do not sell more than 500 tons total Electro Feb./Mar. Shipts. 13¼, discretion 13.15. We would prefer lose business than meet competition at less than above limits.

01498 FEBRUARY 1, 1921. 7:00 P. M.

You may sell, total, 500 tons, February/March shipment, 13¼ cents lb. minimum.

21517 FEBRUARY 21, 1921. 5:00 P. M.

You may sell 1,000 tons daily until, further notice at market price 13¢ minimum March April shipments. Competition more active here. We do not want lose any business on account of holding too high.

01526 MARCH 1, 1921. 5:00 P. M.

Referring to your cable No. 366 do not sell below 13¢. Cannot see the advantage if we meet this competition at the present time. Keep us well informed as to your market.

03529 MARCH 3, 1921. 8:45 P. M.

We want to keep in the market, not leave the business in the hands of competition entirely. You may meet competition down to 12¾ cents CIF moderate quantities, without pressing market or showing anxiety sell.

15534 MARCH 15TH, 1921. 5:00 P. M.

Cannot clearly see our way meet competition at the present time. We may if it is a business of considerable importance. Keep us well informed as to your market. Please telegraph in even you have any definite business in sight. We will give definite instructions during the next few days.

24545 MARCH 24, 1921.

Referring to your cable No. 382, we will accept subject to following condition: the buyers will be responsible also banks for final payment half credit Banca Commerciale Italiana London Branch, half Banca Commerciale Italiana New York Branch, 60 day acceptance. Stop. Market outlook materially better on account of prospect greatly reduced production; were considering withdrawal offer on account of price and failure accept offer, finally decided we leave it to you question time shipment. Try limit shipment third quarter

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28548 MARCH 28TH, 1921. 2:30 P. M.

Hold at 12¾¢ minimum 500 tons daily April May shipments. We are not anxious sellers. We expect better market when reduction output generally known. Stop. Our impression is leading competitors no longer anxious sellers offering continuously small quantities immediate shipment. Are we right?

02556 APRIL 2, 1921. 2:00 P. M.

All steamship lines suddenly advance rate ¼ cent per lb. Hold at 13 cents lb. minimum, not exceeding 500 tons daily, April/May shipment. Our competitors know rate of freight is advanced, will undoubtedly raise their price.

10581 MAY 10, 1921. 7:00 P. M.

You may sell not more than 750 tons, total daily, May June shipment 13¼ cents. You should obtain premium for delivery from stock ¼ cent.

16587 MAY 16, 1921. 5:00 P. M.

Referring to your cable No. 428, you may sell 1,000 tons post office June shipment 13½¢. Stop. You may sell not more than 750 tons total daily June July shipment 13½¢.

07609 JUNE 7, 1921. 6:30 P. M.

Do not care to withdraw from the market entirely. We leave it to you asking price. Accept privately prices leading competitors down to 13⅝ cents lb. Commencing immediately allowance for cathodes \$3.00 per 2,000 lbs. We have shipped Sevenska, 30 tons square cakes, per S/S Drottingholm. Referring to your cable No. 445 Chaudoir, we have shipped 50 tons per S/S Mystic.

14613 JUNE 14, 1921. 7:00 P. M.

Desire to remain in the market in order to secure fair share current business. Leave the matter to your judgment meet leading competitors, June/July/August shipment. Try to get premium August shipment.

01623. JULY 1, 1921. 5:00 P. M.

Bessemer most of production balance of year disposed of. You may sell 1,000 tons July August September shipment 12¾¢. Genoa acceptance here next week.

07626 JULY 7, 1921.

Bessemer withdraw our offer. Referring to our cable 624 you may sell 500 tons September shipment 13⅞¢ 500 tons October shipment 13¢ acceptance here Monday.

19634. JULY 19, 1921. 5:00 P. M.

Referring to your cable No. 476 who are the parties offering What quantity renew the offer of referring to our cable No. 620 Do not go below 12¾¢.

02643 AUGUST 2, 1921. 6:00 P. M.

In order to keep in the market meet leading competition down to 12¼ cents lb. August/September shipment. Do not wish to sell large quantity this price. Do not sell more than 200 tons daily each buyer.

12650. AUGUST 12, 1921. 10:00 P. M.

Market stronger here. Increase limit ⅛¢ or more if in your judgment conditions in your market warrant. Hold strictly to instructions limiting quantity, as per our telegram previous. Understand competitors here holding 12⅛¢ to 12¼¢ F. A. S. New York. Do not wish to sell large quantities at this price. Stop. Bessemer: repeat our last offer. Referring to our cable No. 639 acceptance here August 18.

16652. AUGUST 16, 1921. 6:00 P. M.

If leading competitors continue to offer at this price, 12¼ cents, you may sell down to 12¼ cents lb. CIF. We desire to remain in the market but repeat, want to sell very sparing at this price. Advance at any good buying and keep us advised.

31663. AUGUST 31, 1921. 5:00 P. M.

Refer to our cable 662 advance to 12¼. This price is minimum get higher prices if conditions warrant. Referring to your letter 405 sails from New York three times a month. You may sell ¼¢ more than Hamburg. Referring to our cable shall we ship 300# blunt wirebars. Telegraph what are specifications Metallgeselischaft.

01665. SEPTEMBER 1, 1921. 5:00 P. M.

Disregard our letter 720 cancel previous instructions. You may sell not more than 300 tons total 12⅜¢ not more than 500 tons total 12½¢ at present do not sell dealers. We understand principal competitors out of the market. Please confirm try to keep position confidential.

17677 SEPTEMBER 17, 1921. 1:00 P. M.

Referring to your cable No. 528 demand ¼¢ premium Italy Sweden. Our lowest price is 12¾¢ lb. Market much stronger. Very little offering on this side.

04692. OCTOBER 4TH, 1921. 5:00 P. M.

We have shipped consignment Hamburg 100 tons wirebars ptd. 175# S/S Mount Seward. Buying continues here market stronger with advancing tendency.

04718 NOVEMBER 4TH, 1921.

Advance our last price to 13⅜ cents.

22628 November 22, 1921. 5:30 P. M.

You may sell not more than 1000 tons total daily @ 13¾¢ lb. December/January shipment.

02739 December 2, 1921.

You may sell not more than 1000 tons total daily 14¢ minimum.

05772 January 5, 1922. 5:45 P. M.

In view of sales September to December total 250,000 tons of 2240 lbs., and in view of winter conditions and shortage labor mining camps very little new productions can be available before second half. Advance out last price to 14¼ cents. January/February/March shipment.

06773 January 6th, 1922. 5:15 P. M.

We believe there is undue apprehension regarding starting mines as copper will not be available for long time. Do not pay any attention to rumors. Be governed referring to our cable No. 772.

07793 February 7, 1922. 12 P. M.

We want to proceed very cautious in reducing price but think wise get closer touch with market. We do not want make situation any worse than our competitors already have made it. Think that they must be well sold and not in a position to ship promptly. Authorize you to accept down to 13¾ cents. Do your best keep confidential only disclose your price where you have reason to believe business in sight. We are not anxious sellers. Have sold so little February/March shipment nothing thereafter that are of the opinion that considerable business must be coming along and buyers are waiting revision our price. What is your opinion as to price and quantity for next three months. We repeat, act cautiously and show no anxiety to sell. On next buying movement will try to work price up. Stop. Bessemer copper—accept 12.60 cents Genoa, February/March/April shipment.

09795 February 9, 1922. 5:30 P. M.

Meet competition down to 13⅜¢ not over 1200 tons. Act cautiously as we hope present depressed market conditions will clear up and prices will advance. Avoid any fixed price. Try to obtain better prices when it is possible. Do not sell dealers. Refer to your cable No. 656, cable received 10th word incomprehensible. Please repeat.

21804. February 21, 1922. 5:50 P. M.

Referring to our cable No. 795, meet competition down to 13.10¢ per lb. CIF. February/March/April shipment. If you find competitors going lower. At your discretion you may make slight concessions.

23805. February 23, 1922. 5:45 P. M.

In present state of market must trust your discretion minimum 12⅞¢ please act with great caution. Do not quote minimum unless it will lead to sure business. We are not anxious sellers but want to keep in game. Meet competition only American Metal Company. Ignore competition others.

01813 March 2, 1922.

Sell until you hear from us further at the same price leading competitors without restriction as to quantity minimum 13¢ stop. General business conditions here improving stop. Offer 1000 tons Bessemer July–December 12½¢ stop. For your information only February sales 50000 tons of 2000 pounds shows underlying conditions are sound.

04817 March 6, 1922.

Leading competitors position changed pressure to sell has been withdrawn by everyone outlook thereby greatly improved. Large business has been done here

this week. Spring demand promises continuance large business. Do not wish to give positive instructions leave the matter to your judgment and decision to keep (in) touch with market and regulate your prices accordingly.

28838 MARCH 28TH, 1922.

We leave the price to you the reason is we want to keep in the market without forcing sales do not sell more than 1000 tons total daily Bessemer Braden 12¼¢ lb. Buyers representative participating Chile weighing.

01842 MARCH 1, 1922. 1:30 P. M.

Porphyrys resume mining today. Their production available market July 1000 tons gradually increasing monthly thereafter. Stop. All American mills busy. They are clearing out stocks. In our opinion they must buy largely for May/June requirements stop. Sales March large. Will cable you quantity Monday. If consumption continues as at present there may be shortage before new production is available.

03843 MARCH 3, 1922. 8:30 P. M.

Referring to your cable No. 704. Maffei. Please deliver from consignment afloat on account of pressure on market we are unwilling to continue reduction price. Do not consider justified. Reaffirm conditions as per our cable No. 842. Do not go below 12¾¢. Hope you will conceal your position. Do not quote fixed price. Total sales last month about 94,000 tons of 2000 lbs.

C. K. J. C. T. W. not in 5:30 P. M.
C. A. A. F. S. G. " " " "
H. M. B. " " " "

(04845—cable No.) APRIL 4, 1922. 8:00 P. M.

Advance minimum to 12⅞¢. The daily tonnage 1000 tons given you is for general distribution to keep in touch with all your markets and not for one or two buyers. Prefer you do not disclose your position to leading competitors.

05847 APRIL 5, 1922. 5:30 P. M.

Hold 13⅛¢ regardless of competition maximum 1000 tons daily. Business conditions here steadily improving. Expect large consumption 2nd quarter.

11853. APRIL 11, 1922. 5:00 P. M.

In order to give you latitude and avoid fixed minimum price, quote openly at 13⅛¢ lb. CIF. Privately meet competition down to 13.07½¢ lb. CIF. We have shipped contract No. 53 S/S Guiseppe Verdi.

25864 APRIL 25, 1922. 5:30 P. M.

In our opinion general conditions justify higher price. Please hold 13⅛¢ minimum to everyone. Daily maximum 1000 tons stop. Authorize you to accept post office in addition to daily quantity down to 13.10. We are very doubtful whether your competitors can obtain this quantity for nearby delivery.

29869 APRIL 29, 1922. 2:00 P. M.

Advance limit to 13¼¢. In order to avoid fixed price give you discretion down to 13.225 or 13.20. In all cases get highest price possible. Ignore competition dealers speculators. There is very little copper free for nearby delivery.

20888 MAY 20, 1922.

Advance ⅛¢ subject to same conditions. Stop. Referring to your cable 750 26 tons 13½¢ CIF. Hamburg or 13½¢ FAS Valparaiso prompt shipment from Chile from what consignment will you deliver (or have you delivered) referring to contract 87.

29898 May 29, 1922. 6:00 P. M.

Confirm sales 1000 tons, 14.10. Authorize sale additional 1250 tons, 14.10 cannot accept less for following reasons. Doubtful if suoh quantity obtainable elsewhere for prompt shipment, 14.10. Stocks are decreasing steadily. Market here 14¢ with practically only two or three sellers for June/July shipment. Higher market generally expected. Paris sold last week (in) 13.10 and 14⅛. England also buying freely about same price. Market here ⅛ higher today. Please confirm additional 1250 tons immediately. State time of shipment.

29899. May 29, 1922.

We do not understand your continuous report 13.95. Who are the sellers. Think there must be mistake somewhere. Dealers pay here 13⅞ free alongside for export. Want keep in the market. Hold 14.10 with discretion down to 14.05 only in special cases.

02903 June 2, 1922. 5:00 P. M.

Benjamin states copper sold here today 14¢ free alongside stop. Have sold London today 400 tons, 14¼ CIF. understand American Metal Co. Your market now 14¼¢. Please confirm get all you can (from) without losing business.

10907 June 10, 1922. 1:30 P. M.

Copper can be bought here second hands 13⅞ free alongside. Paris sold rai tilleries today 14.18. Stop. Freight rates (is) have been reduced (to). Authorizes you to accept 14⅛ minimum. Get all you can (from) without losing business. Keep away from set price. Consumption here excellent. Consider market strong but temporarily quiet owing heavy buying previous months.

17912. June 17, 1922. 1:30 P. M.

Consumption here excellent through summer months, market here influenced by offerings second hands 13¾ F. A. S. N. Y. Assume there will not be much buying in your market in near future and it will be best (to) to take nominal position saying our idea is 14¢ stop. As soon as buyers again enter market let us know we will then probably meet competition as we want full share business being done. Stop. We understand others are offering (it) in your market without doing much business.

24921. June 24, 1922. 2:00 P. M.

Second hands have disposed of their holdings. Market situation clearing up. Benjamin bought small lot yesterday 13⅝ FAS. Price today 13.70 FAS. Are informed that leading competitors now 14¢ CIF. Think situation fully warrants your getting that price, therefore hold 14¢ minimum. Keep us well advised as to competitors particularly, $ metallgesellschaft, ignore Brandies Goldschmidt. Other dealers who have small quantity only stop. Consumption here enormous, every mill full capacity through summer months.

EXHIBIT NO. 2115

Production, Export Shipments, and Stocks of Refined Copper, North and South America, Distributed According to Quantities Controlled by Members of Copper Export Association, Inc. and Others, Monthly, 1921–1923

[Amount in short tons]

Year and Month	Production				Export Shipments				Refined Stock at end of Month			
	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.
1921												
June	40,956	23,709	17,247	55	21,871	10,246	11,625	47	364,235	343,612	20,623	94
July	35,512	22,208	13,304	62	26,879	11,331	15,548	42	354,389	325,556	28,833	92
August	34,890	20,925	13.965	60	19.687	10,978	8,709	56	340,899	315,710	25,189	93
September	39,313	22,755	16,558	58	29,973	15,164	14,809	51	325,311	307,894	17,417	94
October	35,714	24,300	11,414	68	25,695	14,567	11,128	57	307,256	295,605	11,651	96
November	40,206	26,992	13,214	67	37,129	22,116	15,013	60	281,308	278,952	2,356	99
December	39,592	27,662	11,930	70	29,586	19,097	10,489	65	267,968	261,464	6,504	98
Total	266,183	168,551	97,632	63	190,820	103,499	87,321	54				
1922												
January	45,356	27,366	17,990	60	24,754	15,784	8,970	64	260,018	249,952	10,066	96
February	43,127	26,601	16,526	62	23,598	9,187	14,411	39	247,706	242,707	4,999	98
March	52,107	36,906	15,201	70	35,143	19,202	15,941	54	230,659	237,008	minus qty	103
April	54,903	39,976	14,927	72	33,694	22,150	11,544	66	216,820	219,871	" "	101
May	59,669	42,470	17,199	71	28,554	18,650	9,904	65	206,212	201,365	4,847	97
June	65.890	49,407	16,483	75	36,996	24,507	12,489	66	183,701	185,842	minus qty	101
July	68,434	50,232	18,202	73	34,644	23,042	11,602	67	165,939	180,151	" "	109
August	78,546	56,090	22,456	71	33,655	19,702	13,953	57	158,283	158,454	" "	100
September	76,140	51,448	24,692	68	24,608	14,845	9.763	60	156,212	152,211	4,001	97
October	81,128	58,999	22,129	73	31,158	16,155	15,003	52	140,865	140,178	687	100
November	82,152	60,104	22,048	73	26,803	21,329	5,474	79	142,705	135,263	7,442	97
December	81,377	57,409	23,968	70	23,851	13,998	9,853	59	149,893	142,782	7,111	96
Total	788,829	557,008	231,821	71	357,458	218,551	138,907	61				
1923												
January	88,450	65,633	22,817	74	42,880	25,508	17,372	59	134,154	126,907	7,247	95
February	83,120	61,645	21,475	74	25,520	13,067	12,453	51	125,484	118,565	6,919	95
March	93,039	70,874	22,165	76	29,548	16,823	12,725	57	114,336	106,927	7,409	94
April	85,514	66,617	18,897	78	29,213	15,071	14,142	52	104,828	97,515	7,313	93
May	92,224	65,467	26,757	71	27,229	11,788	15,441	43	102,398	92,893	9,505	91

Production, Export Shipments, and Stocks of Refined Copper, North and South America, Distributed According to Quantities Controlled by Members of Copper Export Association, Inc. and Others, Monthly, 1921–1923—Continued

[Amount in short tons]

Year and Month	Production				Export Shipments				Refined Stock at end of Month			
	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.	Total Refinery Report	Qty a/c Members C. E. A.	Apparent Qty a/c Others	Percent C. E. A.
1923												
June	90, 845	67, 083	23, 762	74	30, 553	9, 880	20, 673	32	98, 846	93, 455	5, 391	95
July	92, 247	66, 265	25, 982	72	29, 188	11, 497	17, 691	40	106, 811	106, 601	210	100
August	102, 837	72, 545	30, 292	71	40, 452	18, 789	21, 663	46	106, 790	106, 585	205	100
September	100, 354	77, 167	23, 187	77	33, 377	17, 564	15, 813	53	126, 549	128, 552	minus qty	102
October	114, 953	86, 055	28, 898	75	42, 791	30, 350	12, 441	72	137, 089	126, 411	10. 678	92
November	106, 844	78, 569	28, 275	74	47, 932	28, 608	19, 324	60	131, 953	117, 165	14, 788	89
December	118, 354	87, 207	31, 147	74	43, 189	27, 184	16, 005	63	155, 885	131, 836	24, 049	85
Total	1, 168, 781	865, 127	303, 654	74	421, 872	226, 129	195, 743	54				

Source: Prepared by R. R. Eckert former manager of Copper Export Association.

Exhibit No. 2116

[Copy]

New York, *May 26th, 1921.*

Mr. F. H. Brownell,
Building.

Dear Sir: In line with our yesterday's talk I am handing you herewith a statement showing—

1—The net price realized by the Copper Export Association reduced to a net New York basis, but with no deduction for their office or operating expenses.

2—Engineering & Mining Journal net New York price for the same months.

3—Net price realized by this Company since January 1st last when the new Sales Agency was formed. This last figure includes not only our domestic sales but also our proportion of the Export Association sales.

You will note from the attached that the Export Association have realized constant and substantial premiums over the prices quoted by the Engineering & Mining Journal. The E. & M. Journal prices, although possibly influenced by the foreign prices, represent primarily the domestic prices of copper.

You will also note that the Export Association's price for the first four months of this year are higher in every month than the price realized by this Company. As our prices are a combination of domestic and export prices, it follows that on purely domestic sales our average must have been less than our combined average on domestic and export sales, and therefore that the difference in favor of the Export Association's prices, as compared with the domestic prices, is even larger than indicated.

I have gone over hurriedly our detailed record of sales day by day since the first of the year, and with very few exceptions the net price realized by the Export Association was, on each day, higher than the net price realized on domestic sales.

All of the above bears out the very strong impression which I have had that the net price realized by the Export Association was very considerably in excess of the domestic price day by day. This is further borne out by the fact that those agencies such as the American Metal Co. who are independent to sell in the highest market, have sold approximately 80% of their total in the foreign market and only 20% in the domestic market, thereby showing conclusively that either the foreign market has been the more tempting market, or the American Metal Co. have not been "on the job." I have never heard anyone accuse them of the latter.

The only way to prove conclusively the facts of the situation would be to have the Export Association make a daily record of their net prices from day to day since the organization of the Association, and then have the various agencies each make up a similar record of their net prices for domestic sales on the same days, and submit it either as a joint statement through the Manager of the Export Association or individually, for comparative purposes.

This would entail considerable clerical work, and unless it was of vital importance should not, to my mind, be necessary, as the exhibit I have given proves conclusively, to my own mind, the fact that the Export Association prices have been consistently above the domestic prices of its members, both prices translated into net New York figures.

Yours very truly,

(Sgd.) H. M. Brush.

Sold During:	Price Realized by Copper Exp. Assoc. on Basis FOB. N. Y.	E. & M. Journal Price:	Difference in favor of Export Assoc.:
1919:			
February	17.00¢	16.763¢	.237¢
March		14.856¢	
April	15.53¢	15.246¢	.284¢
May	15.97¢	15.864¢	.106¢
June	17.84¢	17.610¢	.230¢
July	21.47¢	21.604¢	[1].134¢
August	23.71¢	22.319¢	1.391¢
September	21.63¢	21.755¢	[1].125¢
October	22.24¢	21.534¢	.706¢
November	20.61¢	19.758¢	.852¢
December	19.18¢	18.295¢	.885¢
Average	19.23¢	18.691¢	.403¢
1920:			
January	19.93¢	18.918¢	1.012¢
February	19.45¢	18.569¢	.881¢
March	18.99¢	18.331¢	.659¢
April	19.29¢	18.660¢	.630¢
May	19.10¢	18.484¢	.616¢
June	18.74¢	18.065¢	.675¢
July	18.70¢	18.576¢	.124¢
August	18.93¢	18.346¢	.584¢
September	18.73¢	18.144¢	.586¢
October	16.32¢	15.934¢	.386¢
November	14.79¢	14.257¢	.533¢
December	13.79¢	13.188¢	.602¢
Average	18.36¢	17.456¢	.607¢
1921:	([2])		
January	12.97¢ 12.87	12.597¢	.373¢
February	13.10¢ 12.77	12.556¢	.544¢
March	12.52¢ 12.11	11.976¢	.544¢
April	12.68¢ 12.53	12.438¢	.242¢
Average	12.85¢	12.392¢	.426¢

[1] Negative amount.

[2] Net sales price realized by the A. S. & R. Co. for its domestic sales and its proportion of the export sales combined.

Average prices in column 1 are based on weighted averages of sales actually made by Copper Export Association.

Average prices in column 2 and 3 are determined by addition of the monthly averages, divided by the number of months.

May 25, 1921.

Exhibit No. 2117

Names of Members of Copper Exporters, Inc.

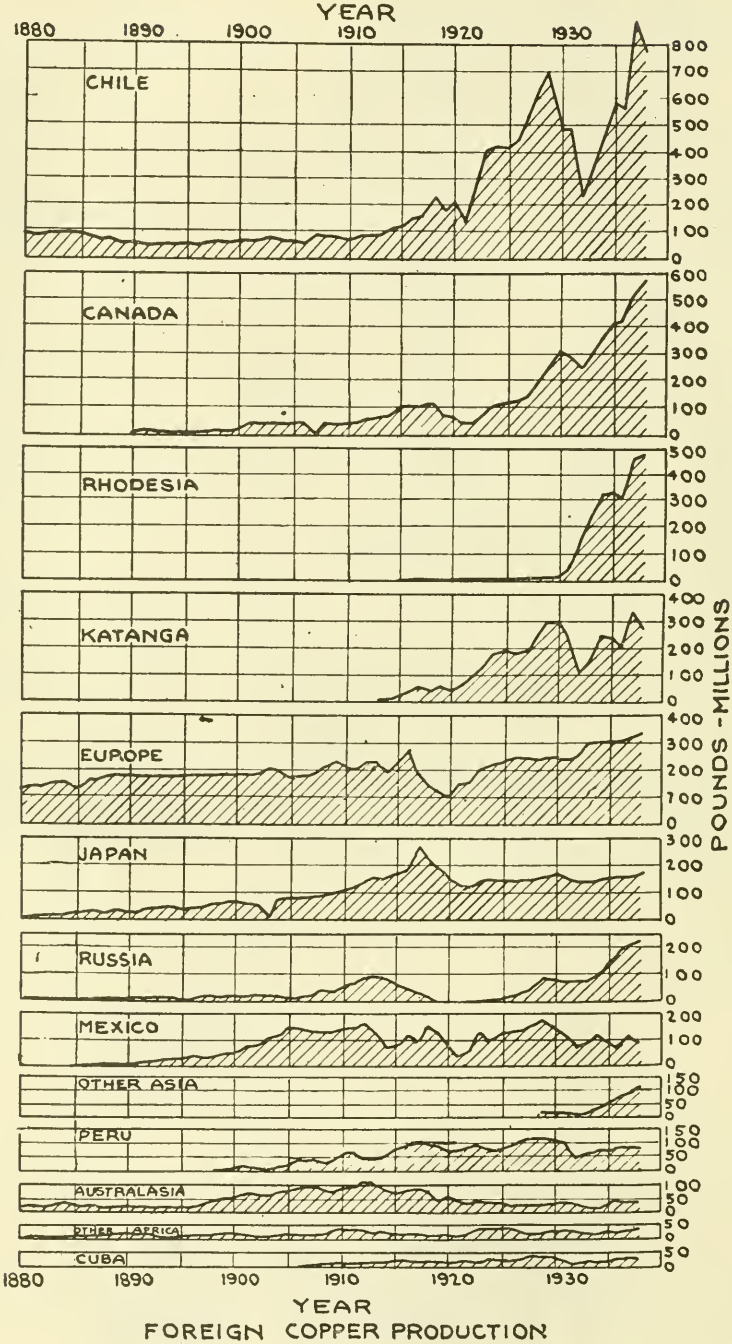
Members	Agreement Signed	Date of Withdrawal	Foreign Associates	Agreement Signed	Date of Withdrawal
American Metal Co	Oct. 13, 1926	July 15, 1933	Andes Copper Mg. Co	June 28, 1928	May 12, 1933
American Smelt. & Refg. Co	Oct. 11, 1926	May 10, 1933	Chilean Exploration	Oct. 20, 1926	June 30, 1932
Anaconda Copper Mining Co	Oct. 14, 1926		Henry Gardner	Oct. 15, 1926	June 30, 1932
Calumet & Arizona			Greene Cananea	Oct. 14, 1926	May 12. 1933
(Cons. with P. Dodge)	Oct. 20, 1926	(P. D. Dec. 17, 1932)	Aron Hirsch & Sohn	Oct. 15, 1926	July 2, 1932
Calumet & Hecla	Nov. 8, 1926	Jan. 14, 1933	Mansfeld		
Copper Range Co	Oct. 19, 1926	July 20, 1933	Consolidated	Oct. 15, 1926	
Int. Metal	Oct. 15, 1926	Feb. 10, 1933	Mansfeldscher		
Int. Min. & Metals	Oct. 15, 1926	Apr. 5, 1932	Metallgesellschaft	Oct. 15, 1926	July 2, 1932
Inspiration Cons	Oct. 11, 1926		Haut Katanga	Oct. 15, 1926	July 1, 1932
Kennecott Copper Corp	Oct. 14, 1926	May 10, 1933	Hoboken	Oct. 15, 1926	July 1, 1932
Mother Lode	Oct. 11, 1926	May 10, 1933	So. Amer. Prod. Corp	Oct. 15, 1926	
Nevada Cons	Oct. 11. 1926	May 10, 1933	Rio Tinto	Oct. 15, 1926	July 2, 1932
New Cornelia	Oct. 14, 1926		American Metal, Canada	July 11, 1930	June 30, 1932
Nichols Copper Co	Oct. 14, 1926		British Metal Corp	Dec. 28, 1927	Dec. 26, 1931
Old Dominion	Oct. 15. 1926	Dec. 17, 1932	Roan	Jan. —, 1932	
Phelps Dodge	Oct. 13, 1926	Dec. 17, 1932	Bor	July 27, 1931	
W. P. Todd	July 1, 1927	Mar. 4, 1932	Boleo	Jan. 27, 1931	
	Apr. 12, 1932	July 21, 1933			
United Verde	Oct. 13, 1926	July 15, 1933			
Utah Copper	Oct. 11, 1926	May 10, 1933			
Mines Products Corp		May 10, 1933			

In addition the production of the following companies was sold to or by members or associates:

Arizona Com'l Mg. Co.	Howe Sound	Ohio
Braden	International Nickel	Quincy
Butte & Superior	International Smelting	Rhokana
Bwana M'Kubwa	Iron Cap.	Shattuck
Cerro de Pasco	Magma	United Verde Extension Mg. Co.
East Butte	Mason Valley	Utah Consolidated Mg. Co.
Engels	Matahambre	Utah Delaware
Granby	North Butte	Walker

Source: Prepared by R. R. Eckert, former Manager of Copper Exporters, Inc.

EXHIBIT No. 2118



FOREIGN COPPER PRODUCTION

EXHIBIT No. 2119

Share of World Production of Copper Controlled by Members of Copper Exporters, Inc., 1927–31

[Amount in short tons]

Item	1927		1928		1929	
	Amount	Percent	Amount	Percent	Amount	Percent
Total world production	1,682,361	100.0	1,894,003	100.0	2,118,209	100.0
Controlled by members of C. E., Inc	1,427,004	84.8	1,625,073	85.8	1,803,687	85.1
United States companies and their subsidiaries	1,128,399	67.1	1,286,668	67.9	1,409,155	66.5
United States production	794,860	47.3	883,597	46.6	967,915	45.7
Foreign production	333,539	19.8	403,071	21.3	441,240	20.8
Foreign companies	298,605	17.7	338,405	17.9	394,532	18.6
Controlled by non-members of C. E., Inc	255,357	15.2	268,930	14.2	314,522	14.9
United States companies and their subsidiaries, United States production only	52,559	3.1	51,602	2.7	58,433	2.8
Foreign companies	202,798	12.1	217,328	11.5	256,089	12.1
Percent of United States production controlled by members of C. E., Inc		93.8		94.5		94.3

Item	1930		1931	
	Amount	Percent	Amount	Percent
Total world production	1,734,745	100.0	1,487,992	100.0
Controlled by members of C. E., Inc	1,378,800	79.5	1,155,481	77.7
United States companies and their subsidiaries	965,858	55.7	801,547	53.9
United States production	647,049	37.3	479,366	32.2
Foreign production	318,809	18.4	322,181	21.7
Foreign companies	412,942	23.8	353,934	23.8
Controlled by non-members of C. E., Inc	355,945	20.5	332,511	22.3
United States companies and their subsidiaries, United States production only	63,641	3.7	45,265	3.0
Foreign companies	292,304	16.8	287,246	19.3
Percent of United States production controlled by members of C. E., Inc		91.0		91.4

Source: Prepared by the staff of the T. N. E. C. from figures compiled by R. R. Eckert, former manager of Copper Exporters, Inc. Original figures from American Bureau of Metal Statistics.

Exhibit No. 2120

Members of New York Committee of Copper Exporters, Inc.

The following is a list of the Members of the New York Committee, their substitutes, and the Companies represented by each:

J. Clendenin	E. Savage	Kennecott Copper Corpn.
C. A. Austin	M. H. Crego	Phelps Dodge Corpn.
W. C. Bennett	C. W. Nichols	Nichols Copper Co.
W. Parsons Todd		Copper Range Co.
C. M. Loeb	L. Vogelstein	American Metal Co.
	J. Joeb	" " "
H. M. Brush	V. C. Leftwich	American Smelting & Ref. Co.
T. Wolfson	E. Mosehauer	Inspiration Consolidated Copper Co.
F. S. Gourley	T. Burghardt	Calumet & Hecla Co.
J. H. Anderson	H. H. St. Clair	United Verde Copper Co.
B. Elkan		International Minerals & Metals Co.

Exhibit No. 2121

Members of Brussels Committee of Copper Exporters, Inc., at Organization

	Representing	*Alternate*
F. Pisart	Katanga	C. Gutt
	Hoboken & Minerais	"
G. Schwarz	Metallgesellschaft	F. Hrdina
F. Hrdina	Aron Hirsch & Sohn	
K. Grosche	Mansfeld	Mr. Naberschulte

R. de Sallier du Pin, New York Committee representative

"Exhibit No. 2122," introduced on p. 13178, is on file with the committee.

"Exhibit No. 2123," introduced on p. 13178, is on file with the committee.

"Exhibit No. 2124," introduced on p. 13178, is on file with the committee

Exhibit No. 2125

Certified Copy.

R. R. Eckert,
(R. R. Eckert)
~~Secretary.~~
Manager.

IV–4

Member's Agreement

copper exporters, inc.

Agreement, made this day of , nineteen hundred and twenty-six, between a corporation organized and existing under the laws of , (hereinafter called "Seller"), and COPPER EXPORTERS, INC., a corporation organized and existing under the laws of the State of Delaware (hereinafter called "Company").

Whereas, the Company has been organized for the purpose of promoting cooperation of the stockholders thereof solely in export trade in accordance with the provisions of the Act of Congress entitled "An Act to Promote Export Trade, and For Other Purposes," approved April 10, 1918, known as the "Webb Act,"

and Acts amendatory thereof or supplementary thereto, and any and all lawful orders and regulations of the Federal Trade Commission thereunder; and

WHEREAS, the Company proposes to enable the stockholders by entering into agreements identical herewith to obtain in their trade and commerce in exports of copper from the United States to foreign countries all and singular the benefits contemplated by said Act of Congress; and

WHEREAS, the Seller desires to become a stockholder or member of said Company as provided in the certificate of incorporation and the by-laws of the Company and upon the terms hereinafter set forth;

NOW, THEREFORE, in consideration of the premises the parties hereto agree as follows:

1. Copper, of whatever variety, with which this agreement is concerned (hereinafter sometimes called "export copper") is copper for export, or to be exported, or in the course of being exported, or exported from the United States or any territory thereof to any foreign country.

The term "export markets" as used herein refers to all markets in which goods are sold in the "export trade" as that term is defined in the said Act of Congress, and includes all points or places at which copper is sold for delivery outside of the United States and any of its territories.

The term "sales" as used herein refers to sales of copper in export markets.

The term "member" as used herein refers to a seller in export markets (except alien corporations and aliens not residing in the United States or any of its territories) of copper produced or refined in the United States or any of its territories and exported or to be exported therefrom, who shall have entered into an agreement with the Company identical with this agreement.

The term "foreign associate" as used herein refers to a seller in export markets of copper produced outside of the United States or any of its territories, who shall have entered into an agreement with the Company of similar import to this agreement, notwithstanding that such foreign associate may have shipped all or part of its copper, so produced outside of the United States, to the United States for refining on toll, where such copper is returned to such foreign producer.

The term "non-European foreign associate" as used herein refers to a seller who comes within the definition of the term "foreign associate" as above defined but is not a European firm, person or corporation, and is not controlled by one or more European firms, persons or corporations.

The term "European foreign associate" as used herein refers to a seller who comes within the definition of the term "foreign associate" as above defined but is a European firm, person or corporation, or is controlled by one or more European firms, persons or corporations.

The term "copper" as used herein includes Lake copper, Electrolytic copper, Casting and Best Select copper of whatever grade, Bessemer, Blister and Black copper of whatever grade.

2. The Company has provided, or will provide, within its organization a body meeting in New York, designated the "New York Committee," composed of representatives (who may have one or more substitutes) of the members, and has made arrangements or will make arrangements with an accounting corporation in Brussels, Belgium, hereinafter called the "Clearing Bureau." There shall likewise be established a Committee, meeting at Brussels, Belgium, designated the "Brussels Committee," corresponding in function to the New York Committee. The Brussels Committee shall be composed of a representative (with power of substitution) designated by the New York Committee, and a representative (who may have one or more substitutes) designated by each foreign associate not already represented on the New York Committee by a voting representative. The Brussels Committee shall designate its own Chairman. Said representative designated by the New York Committee shall, in all matters considered by the Brussels Committee cast the votes of the respective members represented on the New York Committee in the same number and to the same effect as they were cast on the respective subject by the New York Committee. Each foreign associate shall have the power to designate a representative, who shall have the right to attend all meetings of the New York Committee in an advisory capacity, without the right to vote.

Subject to the above provisions, in all voting had by the New York Committee and by the Brussels Committee, each committeeman shall be entitled to one vote, cast in person, or by substitute, or expressed by mail, by telegram or cable; provided, however, that if, after any action so voted, any committeeman shall thereupon object to the action so voted, a new vote shall be taken and the voting thereon shall be on the basis of one vote to each member or foreign associate for each five hundred tons of its copper producton for the last preceding calendar

year. All final voting upon matters requiring joint action of both committees shall be conducted by the Brussels Committee. the representative of the New York Committee participating in such action upon receipt of and pursuant to instructions from the New York Committee.

3. The Seller at its own expense will sell its export copper in the export markets by such means or agencies as it may deem advisable.

4. The New York Committee, from time to time and as often as it deems desirable, will quote a c. i. f. basic price for electrolytic copper, to serve as a standard, and to be known as the "Standard Electro General Sales Price," or a scale of such prices for different period of shipment or for different export market ports. Such price or prices will be quoted, after consultation with or advices from the Brussels Committee. Standard Electro General Sales Price shall be based (a) on the cost of transportation to the European port to which current freight rate is lowest from New York or Baltimore and differentials for other ports are to be established by the New York Committee, from time to time, approximately in accordance with actual freight conditions; (b) on electro copper in such shapes (wire bars, ingot bars, etc.) as the refineries furnish without premium. Any premium collected for special shapes or allowances made for cathodes is for the account of the seller. The Standard Electro General Sales Price, and any and all changes therein, will immediately be communicated to each member and to the foreign associates. All sales made on the basis of that price by members or foreign associates will be known as "general sales."

5. The Seller agrees (1) to sell or offer to sell its export copper (including copper to be sold by it as agent for a person, firm or corporation not a member or foreign associate) on the basis of the Stanard Electro General Sales Price, or (2) immediately to give notice to the New York Committee of withdrawal from participation in sales made on the basis of that price, or (3) immediately to give like notice of intention to make sales on a lower price basis, to be known as "special sales." If no notice of withdrawal or notice of special sales is given, the Seller will receive participation in the general sales, made while the price in question remains in effect, in proportion to the "base percentages of participation," as defined in the Schedule of Working Regulations annexed, of those participating in such sales. Participation by the Seller and the other members and foreign associates in general sales made on the basis of any Standard Electro General Sales Price quoted as above provided, will depend on the action they may respectively take under this paragraph with respect to such price. If notice of special sale is given by any member or foreign associate, advice of such proposed sale will immediately be sent by the New York Committee, or by the Brussels Committee, to all the members and foreign associates, and any member or foreign associate giving due notice to the New York or Brussels Committee of election to join, will receive participation in such special sale in proportion to the "base percentages of participation", as defined in said Working Regulations, of those participating in such sale, unless otherwise agreed upon by all of such participants. Procedure relating to special sales shall be as provided in said Working Regulations.

6. To enable the necessary allotment of participations in general or special sales to be made among participating sellers, the Seller will (1) beginning on the date this agreement takes effect pursuant to paragraph 14 hereof and on the twenty-fifth day of each month thereafter render a statement to the New York Committee to be transmitted to the Clearing Bureau, in such manner and form as the two Committees shall prescribe, showing the total tonnage of copper production of which the Seller and/or its representatives controls the selling during each of the first, second and third months prior to the then current month, except copper sold for sulphate as provided in the Working Regulations; (2) promptly report by telegraph and by mailing copy of contract to the Clearing Bureau all sales made by Seller, whether general or special or cause its agent making such sales so to report; (3) make in writing or by cable to the Clearing Bureau Seller's "offering", as defined in said Working Regulations, of participation in general sales in a given month, or of tonnage of export copper for sale in that month, for shipment in such month or succeeding months, on or before the twenty-fifth day of the preceding month.

7. In the making of sales, whether general or special, the Seller agrees as follows:

(a) The Seller or its representatives will ship, invoice and collect for all sales made by it or any of its agents.

(b) The Seller shall not be accountable for sales reported by it or its agent which within seven days of date of sale are shown to have been due to error resulting from causes beyond the control of the Seller or its agent.

(c) The Seller does not guarantee performance, on the part of the purchasers, of such contracts, of sale as the Seller or its representatives may make, except that the Seller guarantees that the purchasers shall pay for the copper delivered under such contracts. In the event of the failu or refusal on the part of a purchaser to accept delivery, the amounts then already severally credited to those participating shall be charged back to them by means of corresponding debits against their participations in the sale concerned, subject to the provisions of subdivision (d) of this paragraph. Expenses incurred in suits against a purchaser in respect of copper offered for delivery shall be proportionately for the account of all those participating in the respective sales and all recoveries made in such suits shall be for account of such participating sellers in proportion to their respective participations in such sales.

(d) Notwithstanding the provisions of the preceding subdivision (c), the Seller assumes full responsibility, (1) if a sale is cancelled by purchaser owing to delay in shipment and (2) if a shipment is rejected owing to defect in quality; provided, however, that a sub-committee of the New York and Brussels Committees shall have power to deal with all complaints of customers (including complaints of shortages) with authority to adjust such complaints and the right to assess contribution from participants in the respective sales in order to make such settlement as the sub-committee may deem advisable. If any participant feels aggrieved, appeal may be taken to the Brussels Committee, the decision of which shall be conclusive. The Seller agrees to comply with decisions rendered hereunder and to pay any contributions assessed upon it. It is understood, however, that in case the Seller is delayed or prevented from making deliveries under a contract of sale by reason of force majeure, the New York or Brussels Committee may, in its discretion, make or complete the deliveries required under such contract, it being agreed, however, that on the disappearance of such cause of force majeure, the Seller will make good the deliveries at the original price. Any expense incurred by virtue of such substitution shall be borne by the Seller who is unable to fill his contract; in case of dispute about this expense the Brussels Committee shall decide.

(e) Notwithstanding the provisions of the preceding subdivision (c) hereof, The American Metal Company, Limited (a member of the Company and a "Seller" under an agreement identical herewith) shall guarantee to all other members and all the foreign associates performance, on the part of the purchasers, of all contracts of sale made by it or its sales representatives except as provided in subdivisions (b) and (d) hereof, in consideration whereof, hereby assented to by the "Seller," all other members and all the foreign associates shall guarantee to The American Metal Company, Limited, to the full extent of its participation therein, performance, on the part of the purchasers, of all contracts of sale made by them or their sales representatives respectively except as provided in said sub-divisions (b) and (d).

(f) The Seller will sell only to consumers, except as both committees shall otherwise specifically consent from time to time with a view to facilitating export trade.

8. The Seller agrees to comply with the several stipulations and provisions set forth in the "Schedule of Working Regulations," attached hereto as aforesaid and made part hereof. It is understood that the Working Regulations therein set forth may be amended as in said Working Regulations provided.

9. The Seller agrees to bear its share of the necessary and reasonable expenses of the Company, its committees and the cost of the Clearing Bureau, and to pay to the Company within five days of the rendition of a statement of account, the amount due from it for any such expenses incurred or to be incurred; it being agreed, however, that all such expenses shall be ratably apportioned among the several members and foreign associates of the Company in accordance with their respective "Barometer tonnages" as defined in the Schedule of Working Regulations annexed, for the period to which such expenses relate, except, however, that sellers of Lake copper are to pay respectively that part of such expenses as shall bear the same proportion to the total of such expenses as the quantity of such copper sold for export markets for their respective accounts shall bear to the total of the cooper sold for export markets by or for the members and foreign associates during the period concerned. In the event of termination of this agreement for any cause, the Seller agrees to bear its share of such expenses for the four months following such termination, based on its last reported "Barometer tonnage." In case the Company is dissolved, prior to the termination of this agreement, or within thirty days of such termination, the Seller agrees to bear its share of the expenses of the Company until all business is concluded and will bear its share of

all dissolution expenses, based on its "Barometer tonnage" for the last reported six months period. In order to supply the necessary funds to enable the Company to be organized and to perform its functions prior to the expiration of the first financial accounting period, the Seller agrees to advance and pay to the Company its ratable proportion of the sum so required as estimated by the New York Committee.

10. The Seller consents that if requested to resign from membership in the Company, pursuant to an affirmative vote of three-quarters of the votes cast or expressed as provided in paragraph 2 hereof, at a meeting of the New York Committee, called to consider that subject on thirty days' notice, this agreement shall terminate as of the date on which such request is transmitted by letter and telegram.

11. Unless previously terminated as herein provided, the duration of this agreement shall be for a minimum period of six months from the date on which it takes effect pursuant to paragraph 14 hereof; thereafter it may be terminated at the expiration of a previous notice of thirty days given by either party to the other. After the giving of such notice the Seller shall not be required to make any offering for any period after said thirty days, and shall not be subject to this agreement as to sales of export copper after said thirty days.

The termination of this agreement shall not affect the obligations of the respective parties hereunder as regards any transaction hereunder occurring prior to such termination. The termination of agreements made with the Company by members or foreign associates other than the Seller shall not affect the validity or continuance of this agreement.

12. Upon breach by the Seller of any of the provisions of this agreement, the Board of Directors of the Company by resolution may, and upon any termination or cessation of this agreement shall, declare forfeited all rights of the Seller as a holder of stock of the Company and declare forfeited to the Company all rights of the Seller in the property of the Company as a holder of said stock, whereupon the Seller shall forfeit all said rights as aforesaid, and said Board of Directors by like resolution may cancel the certificate of said stock standing in the name of the Seller and said stock may be again issued as the Company sees fit. The decision of the Board of Directors by such resolution shall be conclusive and binding upon the Seller.

13. Upon the execution of this Agreement the Company shall, upon request of the Seller, issue to the Seller a certificate of stock for one share of its no par capital stock upon the terms set forth in the Certificate of Incorporation and By-Laws of the Company and subject to the provisions herein and therein set forth.

14. It is hereby agreed that this Agreement shall not become effective and operations thereunder shall not begin until the Board of Directors of the Company, by the unanimous consent of all the directors, shall so determine.

In Witness Whereof, the parties hereto have executed and delivered these presents as of the day and year first hereinabove written.

Attest:

By ——————————

——————————

President.

——————————

Secretary

Copper Exporters, Inc.

Attest:

By ——————————

President.

——————————

Secretary.

ss.:

On the day of , in the year nineteen hundred and twenty-six before me personally came to me known, who, being by me duly sworn, did depose and say that he resided in ; that he is the of , the corporation described in and which executed the above insturment; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

State of New York,
County of New York, ss.:

On the day of , in the year nineteen hundred and twenty-six before me personally came to me known, who, being duly sworn, did

depose and say that he resided in ; that he is President of Copper Exporters, Inc., the corporation described in and which executed the above instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

Exhibit No. 2126

Certified Copy.

R. R. Eckert
(R. R. Eckert)
~~Secretary~~
Manager.

IV-5

Foreign Associate Agreement

COPPER EXPORTERS, INC.

Agreement, made this day of , nineteen hundred and twenty-six, between a corporation organized and existing under the laws of (hereinafter called "Foreign Associate"), and Copper Exporters, Inc., a corporation organized and existing under the laws of the State of Delaware (hereinafter called "Company").

Whereas, the Company has been organized for the purpose of promoting cooperation of the stockholders thereof, and such foreign associates as may elect to become affiliated with it, solely in export trade in accordance with the provisions of the Act of Congress entitled "An Act to Promote Export Trade, and For Other Purposes," approved April 10, 1918, known as the "Webb Act," and Acts amendatory thereof or supplementary thereto and any and all lawful orders and regulations of the Federal Trade Commission of the United States thereunder; and

Whereas, the Company proposes to enable the stockholders, by entering into agreements similar to this agreement, and such foreign associates by entering into agreements identical with this agreement, to obtain in trade and commerce in copper marketed outside of the United States all and singular the benefits contemplated by said Act of Congress; and

Whereas, the Foreign Associate desires to become associated with said Company in the manner provided for in the following agreement;

Now, Therefore, in consideration of the premises the parties hereto agree as follows:

1. Copper, of whatever variety, with which this agreement is concerned (hereinafter sometimes called "export copper") is copper for export, or to be exported, or in the course of being exported or exported from the United States or any territory thereof to any foreign country, and also copper produced and marketed outside of the United Statew.

The term "export markets" as used herein refers to all markets in which goods are sold in the "export trade" as that term is defined in the said Act of Congress, and includes all points or places at which copper is sold for delivery outside of the United States and any of its territories.

The term "United States", as used herein, shall mean the United States of America and all of its territories.

The term "sales", as used herein, refers to sales of copper in export markets.

The term "member" as used herein refers to a seller in export markets (except alien corporations and aliens not residing in the United States or any of its territories) of copper produced or refined in the United States or any of its territories and exported or to be exported therefrom, who shall have entered into an agreement with the Company similar to this agreement.

The term "foreign associate", as used herein, refers to a seller in export markets of copper produced outside of the United States or any of its territories, who shall have entered into an agreement with the Company identical with this agreement, notwithstanding that such foreign associate may have shipped all or part of its copper, so produced outside of the United States, to the United States for refining on toll, where such copper is returned to such foreign producer.

The term "Non-European foreign associate" as used herein refers to a seller who comes within the definition of the term "foreign associate" as above defined but is not a European firm, person or corporation, and is not controlled by one or more European firms, persons or corporations.

The term "European foreign associate" as used herein refers to a seller who comes within the definition of the term "foreign associate" as above defined but is a European firm, person or corporation, or is controlled by one or more European firms, persons or corporations.

The term "copper", as used herein, includes Lake copper, Electrolytic copper, Casting and Best Select copper of whatever grade, Bessemer, Blister, and Black copper of whatever grade.

2. The Company has provided, or will provide, within its organization a body meeting in New York, designated the "New York Committee," composed of representatives (who may have one or more substitutes) of the members, and has made arrangements with or will make arrangements with an accounting corporation in Brussels, Belgium, hereinafter called the "Clearing Bureau." There shall likewise be established a Committee, meeting at Brussels, Belgium, designated the "Brussels Committee", corresponding in function to the New York Committee. The Brussels Committee shall be composed of a representative (with power of substitution) designated by the New York Committee and a representative (who may have one or more substitutes) designated by each foreign associate not already represented on the New York Committee by a voting representative. The Brussels Committee shall designate its own Chairman. Said representative designated by the New York Committee shall, in all matters considered by the Brussels Committee, cast the votes of the respective members represented on the New York Committee in the same number and to the same effect as they were cast on the respective subject by the New York Committee. Each foreign associate shall have the power to designate a representative, who shall have the right to attend all meetings of the New York Committee in an advisory capacity, without the right to vote.

Subject to the above provisions, in all voting had by the New York Committee and by the Brussels Committee, each committeeman shall be entitled to one vote, cast in person or by substitute, or expressed by mail, by telegram or cable; provided, however, that if, after any action so voted, any committeeman shall thereupon object to the action so voted, a new vote shall be taken and the voting thereon shall be on the basis of one vote to each member or foreign associate for each five hundred tons of its copper production for the last preceding calendar year. All final voting upon matters requiring joint action of both committees shall be conducted by the Brussels Committee, the representative of the New York Committee participating in such action upon receipt of and pursuant to instructions from the New York Committee.

3. The Foreign Associate, at its own expense, will sell its export copper in the export markets by such means or agencies as it may deem advisable.

4. The New York Committee, from time to time and as often as it deems desirable, will quote a c. i. f. basic price for electrolytic copper, to serve as a standard, to be known as the "Standard Electro General Sales Price," or a scale of such prices for different periods of shipment or for different export market ports. Such price or prices will be quoted, after consultation with or advices from the Brussels Committee. Standard Electro General Sales Price shall be based (a) on the cost of transportation to the European port to which the current freight rate is lowest from New York or Baltimore and differentials for other ports are to be established by the New York Committee from time to time, approximately in accordance with actual freight conditions, (b) on electro copper in such shapes (wire bars, ingot bars, etc.) as the refineries furnish without premium. Any premium collected for special shapes or allowance made for cathodes is for the account of the seller. The Standard Electro General Sales Price, and any and all changes therein, will immediately be communicated to each member and to the foreign associates. All sales made on the basis of that price by members or foreign associates will be known as "general sales".

5. The Foreign Associate agrees (1) to sell or offer to sell its export copper (including copper to be sold by it as agent for a person, firm or corporation not a member or foreign associate) on the basis of the Standard Electro General Sales Price, or (2) immediately to give notice to the Brussels Committee of withdrawal from participation in sales made on the basis of that price, or (3) immediately to give like notice of intention to make sales on a lower price basis, to be known as "special sales". If no notice of withdrawal or notice of special sales is given, the Foreign Associate will receive participation in the general sales made while the price in question remains in effect, in proportion to the "base percentages of participation," as defined in the Schedule of Working Regulations annexed, of those participating in such sales. Participation by the Foreign Associate and the other members and foreign associates in general sales made on the basis of any

Standard Electro General Sales Price quoted as above provided, will depend on the action they may respectively take under this paragraph with respect to such price. If notice of special sale is given by any member or foreign associate, advice of such proposed sale will be immediately sent by the Brussels Committee, or by the New York Committee, to all the members and foreign associates, and any member or foreign associate giving due notice to the New York or Brussels Committee of election to join, will receive participation in such special sale in proportion to the base percentages of participation as defined in said Working Regulations, of those participating in such sale, unless otherwise agreed upon by all such participants. Procedure relating to special sales shall be as provided in said Working Regulations.

6. To enable the necessary allotment of participations in general or special sales to be made among participating sellers, the Foreign Associate will (1) beginning on the date this agreement takes effect pursuant to paragraph 12 hereof and on the twenty-fifth day of each month thereafter, render a statement to the Brussels Committee to be transmitted to the Clearing Bureau, in such manner and form as the two Committees shall prescribe, showing the total tonnage of copper production of which the Foreign Associate and/or its representatives controls the selling during each of the first, second and third months prior to the then current month, except copper sold for sulphate as provided in the Working Regulations; (2) promptly report by telegraph and by mailing copy of contract to the Clearing Bureau all sales made by it, whether general or special, or cause its agent making such sales so to report; (3) make in writing or by cable to the Clearing Bureau its "offering," as defined in said Working Regulations, of participation in general sales in a given month, or of tonnages of export copper for sale in that month, for shipment in such month or succeeding months, on or before the twenty-fifth day of the preceding month.

7. In the making of sales, whether general or special. the Foreign Associate agrees as follows:

(a) The Foreign Associate or its representatives will ship, invoice and collect for all sales made by it or any of its agents.

(b) The Foreign Associate shall not be accountable for sales reported by it or its agent which within seven days of date of sale are shown to have been due to error resulting from causes beyond the control of the Foreign Associate or its agent.

(c) The Foreign Associate does not guarantee performance on the part of the purchasers, of such contracts of sale as the Foreign Associate or its representatives may make, except that the Foreign Associate guarantees that the purchasers shall pay for the copper delivered under such contracts. In the event of the failure or refusal on the part of a purchaser to accept delivery, the amounts then already severally credited to those participating shall be charged back to them by means of corresponding debits against their participations in the sale concerned, subject, however, to the provisions of subdivision (d) of this paragraph. Expenses incurred in suits against a purchaser in respect of copper offered for delivery shall be proportionately for the account of all those participating in the respective sales and all recoveries made in such suits shall be for account of such participating sellers in proportion to their respective participations in such sales.

(d) Notwithstanding the provisions of the preceding subdivision (c) the Foreign Associate assumes full responsibility, (1) if a sale is cancelled by purchaser owing to delay in shipment and (2) if a shipment is rejected owing to defect in quality; provided, however, that a sub-committee of the New York and Brussels Committees shall have power to deal with all complaints of customers (including complaints of shortages) with authority to adjust such complaints and the rights to assess contribution from participants in the respective sales in order to make such settlements as the sub-committee may deem advisable. If any participant feels aggrieved, appeal may be taken to the Brussels Committee, the decision of which shall be conclusive. The Foreign Associate agrees to comply with decisions rendered hereunder and to pay any contributions assessed upon it. It is understood, however, that in case the Foreign Associate is delayed or prevented from making deliveries under a contract of sale by reason of force majeure, the New York or Brussels Committee may, in its discretion, make or complete the deliveries required under such contract, it being agreed, however, that on the disappearance of such cause of force majeure, the Foreign Associate will make good the deliveries at the original price. Any expense incurred by virtue of such substitution shall be borne by the Foreign Associate who is unable to fill his contract; in case of dispute about this expense the Brussels Committee shall decide.

(e) Notwithstanding the provisions of the preceding subdivision (c) hereof, The American Metal Company, Limited (a member of the Company and a "Seller" under an agreement similar herewith) shall guarantee to all other members and all the foreign associates performance, on the part of the purchasers, of all contracts of sale made by it or its sales representatives except as provided in subdivisions (b) and (d) hereof, in consideration whereof, hereby assented to by the "Foreign Associate", all other members and all the foreign associates shall guarantee to The American Metal Company, Limited, to the full extent of its participation therein, performance, on the part of the purchasers, of all contracts of sale made by them or their sales representatives respectively except as provided in said subdivisions (b) anc (d).

(f) The Foreign Associate will sell only to consumers, except as both committees shall otherwise specifically consent from time to time with a view to facilitating export trade.

8. The Foreign Associate agrees to comply with the several stipulations and provisions set forth in the "Schedule of Working Regulations", attached hereto as aforesaid and made part hereof. It is understood that the Working Regulations therein set forth may be amended as in said Working Regulations provided.

9. The Foreign Associate agrees to bear its share of the necessary and reasonable expenses of the Company, its committees and the cost of the Clearing Bureau, and to pay to the Company within five days of the rendition of a statement of account, the amount due from it for any such expenses incurred or to be incurred; it being agreed, however, that all such expenses shall be ratably apportioned among the several members and foreign associates of the Company in accordance with their respective "Barometer tonnages" as defined in the Schedule of Working Regulations annexed, for the period to which such expenses relate, except, however, that sellers of Lake copper are to pay respectively that part of such expenses as shall bear the same proportion to the total of such expenses as the quantity of such copper sold for export markets for their respective accounts shall bear to the total of copper sold for export markets by or for the members and foreign associates during the period concerned. In the event of termination of this agreement for any cause, the Foreign Associate agrees to bear its share of such expenses for the four months following such termination based on its last reported "Barometer tonnage." In case the Company is dissolved, prior to the termination of this agreement, or within thirty days of such termination, the Foreign Associate agrees to bear its share of the expenses of the Company until all business is concluded and will bear its share of all dissolution expenses, based on its "Barometer tonnage" for the last reported six months period. In order to supply the necessary funds to enable the Company to be organized and to perform its functions prior to the expiration of the first financial accounting period, the Foreign Associate agrees to advance and pay to the Company its ratable proportion of the sum so required as estimated by the New York Committee.

10. The Foreign Associate consents that if requested to resign from association with the Company pursuant to an affirmative vote of three-quarters of the votes cast or expressed as provided in paragraph 2 hereof, at a meeting of the Brussels Committee called to consider that subject on thirty days' notice, its affiliation with the Company shall cease, and this agreement shall terminate as of the date on which such request is transmitted by letter and telegram.

11. Unless previously terminated as herein provided, the duration of this agreement shall be for a minimum period of six months from the date on which it takes effect pursuant to paragraph 12 hereof; thereafter it may be terminated at the expiration of a previous notice of thirty days given by either party to the other. After the giving of such notice, the Foreign Associate shall not be required to make any offering for any period after said thirty days and shall not be subject to this agreement as to sales of export copper after said thirty days.

The termination of this agreement shall not affect the obligations of the respective parties hereunder as regards any transaction hereunder occurring prior to such termination. The termination of agreements made with the Company by members or foreign associates other than the Foreign Associate shall not affect the validity or continuance of this Agreement.

12. It is hereby agreed that this Agreement shall not become effective and operations thereunder shall not begin until the Board of Directors of the Company by the unanimous consent of all of the directors, shall so determine.

IN WITNESS WHEREOF, the parties hereto have executed and delivered these presents as of the day and year first hereinbefore written.

By ____________________________
President.

Attest:

____
Secretary.

COPPER EXPORTERS, INC.,
By
President.

Attest:

Secretary.

ss.:

On the day of , in the year nineteen hundred and twenty-six, before me personally came and , to me known and being by me duly sworn, did each for himself depose and say that they resided in and respectively; that said is and said is of the , the corporation described in and which executed the above instrument and that by order of the Board of Directors of said corporation they signed their names thereto on behalf of said corporation.

STATE OF NEW YORK,
County of New York, *ss.:*

On the day of , in the year nineteen hundred and twenty-six, before me personally came to me known, who, being by me duly sworn, did depose and say that he resided in ; that he is President of COPPER EXPORTERS, INC., the corporation described in and which executed the above instrument; that he knew the seal of said corporation; that the seal affixed to said instrument was such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that he signed his name thereto by like order.

"EXHIBIT NO. 2127," introduced on p. 13180, is on file with the committee.

"EXHIBIT NO. 2128," introduced on p. 13186, is on file with the committee.

"EXHIBIT NO. 2129," introduced on p. 13187, is on file with the committee.

Exhibit No. 2130

Sales and Average Prices Received by Copper Exporters, Inc., Monthly, 1926–1932

Year and Month	Sales	Shipments	Average Export price received, less freight, etc.	Average Domestic price, N. Y. f. o. b. refinery [1]	Excess of Export over Domestic price
	Short Tons		Cents Per Pound		
1926					
October (½ month)	12, 216. 00		14. 118		
November	22, 006. 00		13. 954	13. 576	0. 378
December	29, 228. 00		13. 636	13. 302	. 334
Total	63, 450. 00	38, 127. 20			
1927					
January	39, 020. 00	30, 099. 00	13. 232	12. 990	. 242
February	58, 178. 00	38, 259. 00	12. 986	12. 682	. 304
March	34, 557. 50	48, 717. 50	13. 325	13. 079	. 246
April	36, 052. 00	39, 958. 00	13. 111	12. 808	. 303
May	57, 189. 58	48, 078. 58	12. 894	12. 621	. 273
June	39, 406. 18	48, 669. 76	12. 736	12. 370	. 366
July	65, 223. 38	50, 838. 51	12. 785	12. 532	. 253
August	24, 914. 54	45, 093. 22	13. 245	12. 971	. 274
September	41, 473. 85	45, 322. 95	13. 198	12. 940	. 258
October	58, 466. 91	54, 878. 92	13. 244	12. 958	. 286
November	69, 910. 17	50, 118. 70	13. 544	13. 319	. 225
December	48, 107. 52	50, 859. 47	14. 097	13. 774	. 323
Total	572, 499. 63	550, 893. 61			
1928					
January	44, 174. 96	46, 997. 37	14. 207	13. 854	. 353
February	26, 011. 23	43, 120. 88	14. 207	13. 823	. 384
March	59, 929. 47	59, 136. 23	14. 207	13. 845	. 362
April	53, 372. 21	53, 737. 00	14. 208	13. 986	. 222
May	91, 273. 09	57, 475. 81	14. 373	14. 203	. 170
June	50, 773. 72	51, 869. 40	14. 711	14. 527	. 184
July	38, 196. 72	51, 594. 29	14. 710	14. 527	. 183
August	43, 788. 48	52, 006. 38	14. 709	14. 526	. 183
September	86, 436. 05	57, 457. 26	14. 891	14. 724	. 167
October	84, 116. 63	56, 681. 88	15. 382	15. 202	. 180
November	33, 554. 99	52, 622. 91	16. 051	15. 778	. 273
December	59, 197. 04	53, 014. 42	16. 039	15. 844	. 195
Total	670. 824. 59	635, 713. 83			
1929					
January	72, 879. 43	62, 660. 29	16. 744	16. 603	. 141
February	70, 199. 16	54. 698. 89	17. 760	17. 727	. 033
March	56, 138. 12	55, 702. 58	20. 402	21. 257	−. 854
April	7, 469. 62	48, 820. 39	18. 928	19. 500	−. 572
May	12, 520. 71	50, 506. 94	17. 978	17. 775	. 203
June	27, 809. 03	36, 940. 99	17. 979	17. 775	. 204
July	35, 850. 81	39, 397. 53	17. 974	17. 775	. 199
August	63, 052. 54	47, 395. 25	17. 971	17. 775	. 196
September	58, 198. 47	51, 921. 04	17. 976	17. 775	. 201
October	25, 474. 54	40, 917. 26	17. 971	17. 775	. 196
November	21, 072. 22	32, 185. 31	17. 964	17. 775	. 189
December	21, 627. 52	28, 347. 64	17. 978	17. 775	. 203
Total	472, 292. 17	549, 494. 11			
1930					
January	33, 401. 29	32, 987. 73	17. 978	17. 775	. 203
February	33, 006. 57	33, 158. 26	17. 973	17. 775	. 198
March	34, 566. 79	34, 185. 43	17. 978	17. 775	. 203
April	43, 059. 08	36, 676. 49	15. 449	15. 621	. 172
May	108, 005. 06	67, 892. 63	12. 846	12. 756	. 090
June	29, 070. 14	45, 658. 00	12. 245	12. 049	. 196
July	63, 275. 17	48, 794. 56	11. 151	11. 023	. 128
August	23, 125. 63	41, 501. 50	10. 983	10. 693	. 290
September	25, 106. 90	32, 989. 67	10. 736	10. 310	. 426
October	67, 677. 02	48, 130. 02	9. 726	9. 597	. 129
Novembre	70, 947. 51	50, 632. 26	10. 259	10. 113	. 146
December	30, 908. 44	43, 670. 44	10. 528	10. 300	. 228
Total	562, 149. 60	516, 276. 99			

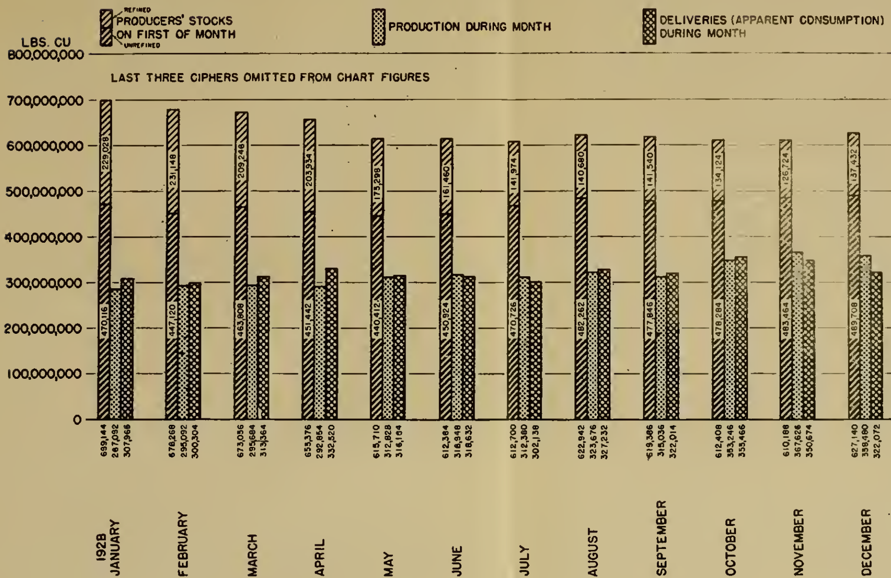
[1] From *Engineering and Mining Journal.*

Exhibit No. 2131

COPPER STATISTICS

RECORD BY MONTHS, OF WORLD'S STOCKS, PRODUCTION AND CONSUMPTION

1928



SOURCE: AMERICAN BUREAU OF METAL STATISTICS

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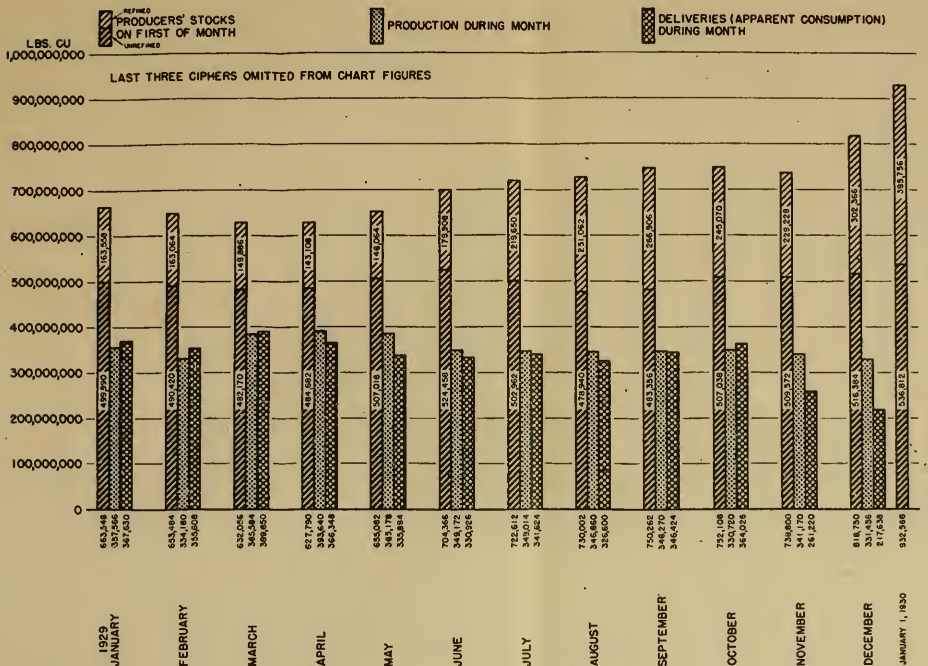
EXHIBIT No. 2131-A

COPPER STATISTICS

RECORD BY MONTHS, OF WORLD'S STOCKS, PRODUCTION AND CONSUMPTION

1929



SOURCE: AMERICAN BUREAU OF METAL STATISTICS.

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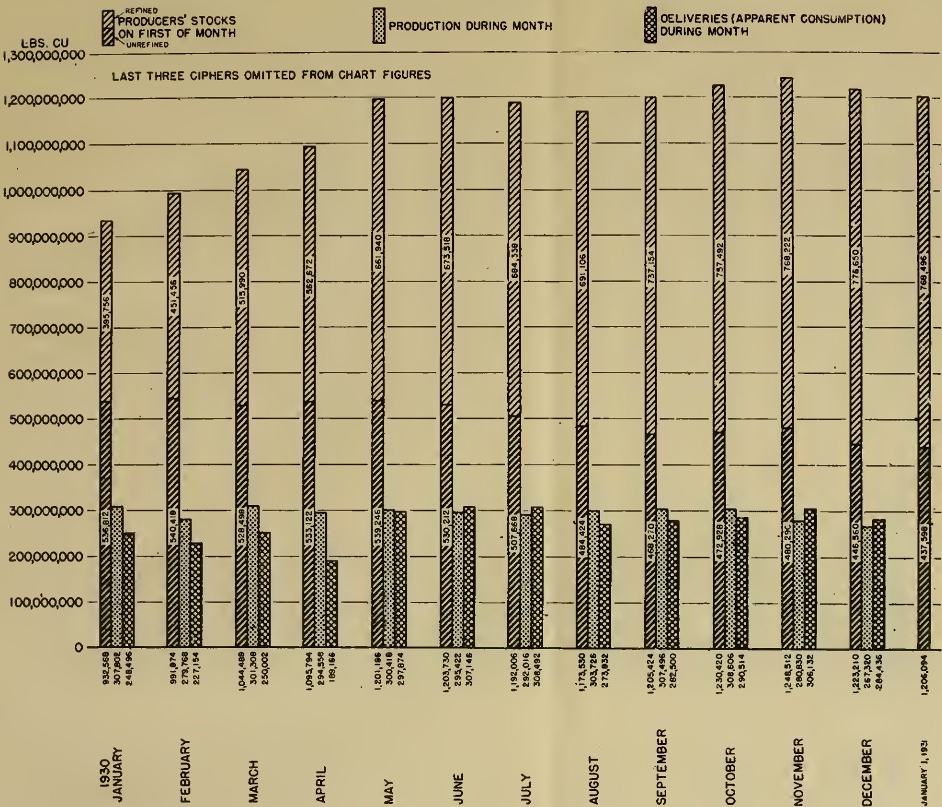
Exhibit No. 2131–B

COPPER STATISTICS

RECORD BY MONTHS, OF WORLD'S STOCKS, PRODUCTION AND CONSUMPTION

1930

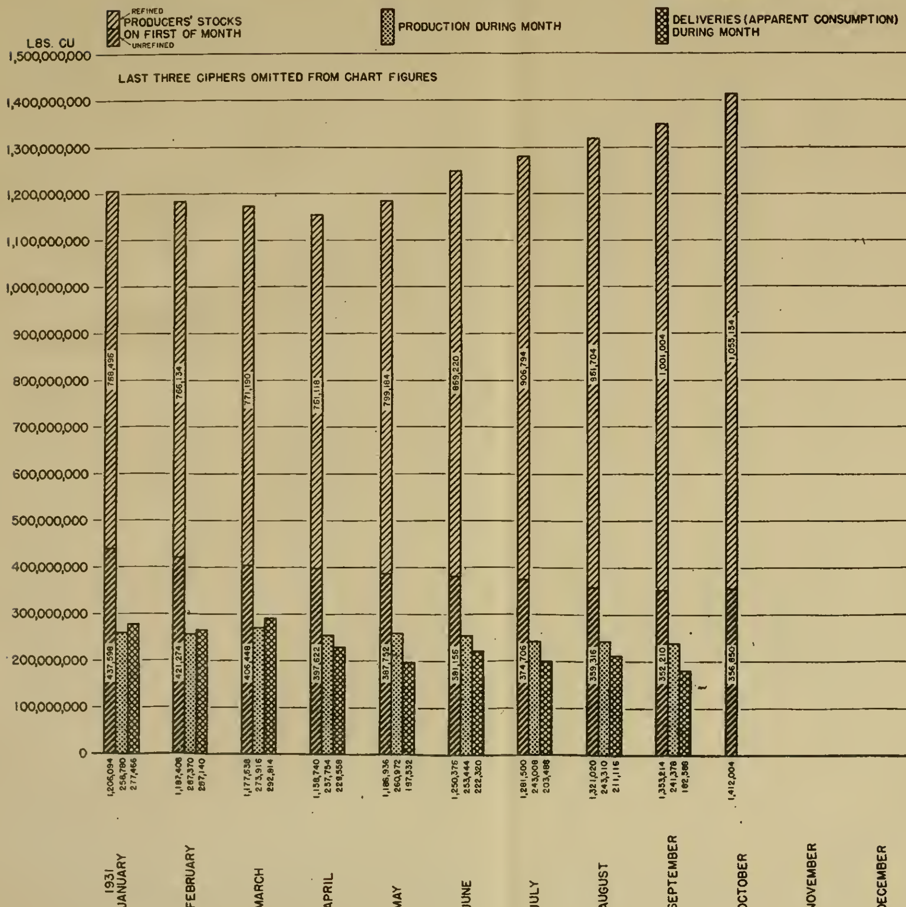


SOURCE: AMERICAN BUREAU OF METAL STATISTICS

COPPER STATISTICS

RECORD BY MONTHS, OF WORLD'S STOCKS, PRODUCTION AND CONSUMPTION

1931



SOURCE: AMERICAN BUREAU OF METAL STATISTICS

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[1] From

Sales and Average Prices received by Copper Exporters, Inc , Monthly, 1926–1932—Continued

Year and Month	Sales	Shipments	Average Export price received, less freight, etc.	Average Domestic price, N. Y. f. o. b. refinery	Excess of Export over Domestic price
	Short Tons		Cents Per Pound		
1931					
January	46, 577. 03	45, 142. 73	10. 024	9. 838	0. 186
February	59, 715. 43	42, 413. 33	10. 024	9. 724	. 300
March	20, 111. 97	36, 794. 52	10. 167	9. 854	. 313
April	23, 377. 27	33, 726. 27	9. 816	9. 392	. 424
May	22, 867. 30	35, 617. 40	9. 058	8. 665	. 393
June	76, 011. 30	34, 800. 96	8. 352	8. 025	. 327
July	18, 315. 45	26, 291. 52	8. 113	7. 698	. 415
August	15, 291. 10	37, 657. 37	7. 717	7. 292	. 425
September	19, 330. 38	36, 156. 56	7. 366	6. 988	. 378
October	32, 306. 75	25, 515. 54	7. 207	6. 775	. 432
November	24, 641. 11	21, 567. 64	7. 087	6. 558	. 529
December	25, 698. 16	21, 492. 66	6. 959	6. 580	. 379
Total	384, 243. 25	397, 176. 50			
1932					
January	16, 469. 82		7. 244	7. 060	. 184
February	25, 978. 00		6. 267	5, 965	. 302
March	19, 938. 66		5. 900	5. 763	. 137
April	8, 688. 36		5. 819	5. 565	. 254
May	8, 270. 49		5. 419	5. 237	. 182
June	8, 790. 28		5. 283	5. 145	. 138
Total	88, 135. 61				

Source: Prepared by the staff of the T. N. E. C. from figures compiled by R. R. Eckert, former manager, Copper Exporters, Inc.

"EXHIBITS Nos. 2131, 2131–A, 2131–B and 2131–C" face this page.

EXHIBIT NO. 2132

OCTOBER 21, 1931.

Re: *Copper Exporters, Inc.*

BOARD OF REVIEW,
Federal Trade Commission, Washington, D. C.

GENTLEMEN: At our conference on September 30, 1931, you requested me to comment upon the activities of Copper Exporters, Inc., with respect to the price of copper in the export market from April, 1929, to April, 1930.

Since that conference I have made inquiries of officials of Copper Exporters, Inc., and from the information which they have given me it appears that the following is a fair statement of conditions existing during that period:

The world reached the peak of its productive and industrial activity during the last half of 1928 and the first half of 1929. The rapid and general expansion of industrial plant capacity, particularly in the United States, and the increased output therefrom, resulted in an unprecedented demand being made upon the producers of raw materials, including all non-ferrous metals, and particularly copper.

While every effort was made to satisfy this demand for copper, the cumulative effect of increased buying for nearby deliveries resulted in a rapid diminution of stocks before production could be increased sufficiently to meet the situation. The natural and unavoidable result was an increase in the price until a level of 24¢ a pound was reached during the month of April, 1929. Thereafter, the price declined rather rapidly to 18¢, and rested at that level for approximately one year. The conditions and sequence of events in the industry preceding and during this period, were as follows:

As of January 1, 1927, the total stock of copper in the world, so far as the same is disclosed by available statistics, amounted to 824,430,000 pounds. The average production for the previous year had been 275,200,000 pounds per month, and the average rate of consumption 272,126,000 pounds per month. The stocks of copper during a year of expanding business increased only 37,134,000 pounds, an amount insufficient to seriously disturb the price level which at the beginning of the year was 13.1¢ a pound.

As of December 31, 1927, due to a gradual increase in consumption, stocks of copper had decreased to a total of 725,868,000 pounds, a decrease of 98,562,000 pounds during the year. An additional decrease of 26,724,000 pounds appeared in the figures, by reason of a change in the method employed by the American Bureau of Metal Statistics in reporting process material, bringing the stocks at December 31, 1927, to 699,144,000 pounds. The average production increased in 1927 to an average of 282,391,000 pounds per month, while the average consumption increased to 290,605,000 pounds per month.

Early in 1928, it became apparent from the statistics that if consumption continued to run at its then level, it would be in excess of current production for a considerable time to come. Production was then running at the then level of mine capacity. Any increase could only be made by (a) increasing the plant capacity of producing mines; (b) bringing into production mines previously inoperative at the price level which had prevailed for many years below 14¢; and (c) gathering together large quantities of scrap, which had not been recoverable when the price of copper was below 14¢.

The gradual rise in price stirred into activity each of these three sources of increased production, which for the entire year 1928 reached a level of 319,412,000 pounds per month, an average increase of 37,021,000 pounds per month over the preceding year. For the entire year of 1928 consumption increased to an average of 322,378,000 pounds per month, resulting in a decrease of 35,596,000 pounds in stocks, and reducing stocks as of December 31, 1928, to 663,548,000 pounds, an amount insufficient to maintain a stabilized market at the rate of deliveries which were then being made.

As early as October, 1928, it was generally realized that while production could ultimately be brought up to the point of satisfying any probable demand, the insistent buying movement that was under way could not be satisfied if buyers insisted on contracts specifying delivery at early dates. In October, 1928, the forward contracts of the industry amounted to more than 785,194,000 pounds of copper, and at that time Copper Exporters, Inc. issued a statement to its foreign representatives suggesting that buyers cease their efforts to compel contracts for nearby delivery and assured the industries looking toward the copper producers for a supply of metal that an adequate production could and would be maintained. A copy of the statement issued by Copper Exporters, Inc. is hereto attached as Exhibit A.

Notwithstanding these recommendations and the fact that production had been brought up to the level where, for the last three months of 1928, it averaged a total of 359,784,000 pounds per month, against deliveries of 342,737,000 pounds, the buying throughout the world, which had assumed panic proportions, continued unabated, so that as of January 1, 1929, stocks had been reduced to 663,548,000 pounds, an amount entirely inadequate to satisfy the demand.

During the first three months of 1929, production continued at the peak, reaching an average of 359,110,000 pounds, as against an average monthly consumption of 371,029,000 pounds, at which time stocks had been reduced to a total of 627,790,000 pounds, the lowest total of which the industry has any record in recent years.

In April, 1929, production established a peak record for all times of 393,640,000 pounds, against deliveries of 366,348,000 pounds, showing that finally a surplus of production above apparent consumption had been established. It was realized by the trade that in the preceding months the probabilities were that large quantities (including in consumption figures) had been bought speculatively upon the natural consuming requirements of the industry, and that the consumption was not in fact as high as indicated by the statistics, a situation that the producing industry was powerless to prevent.

At the end of March the forward contracts booked by the members of the Copper Institute, as reported by that organization, amounted to the stupendous total of 1,016,918,000 pounds, as against which the total stock of copper above ground, both refined and in process, was only 627,790,000 pounds, of which a large portion is fixed and continuously required for the refining operation.

As soon as it became apparent from published statistics that production had been brought to a level higher than the apparent consumption, buying of the metal ceased, and the industry, which realized that consumers had tremendously overbought probable requirements, was faced with the imminent danger of a collapse in the market, as consumers and speculators immediately began to hedge their position upon the London Metal Market, selling against their forward commitments abroad and demanding cancellations and rescissions of contracts at home in the domestic market. The price, which had reached a maximum on limited sales of 24¢ a pound, began rapidly to decline until 18¢ was reached.

The above figures of 1,016,918,000 pounds represents actual contracts for delivery to fabricators, who, in turn had at the time contracted with their clients for the sale, fabrication and delivery to them in manufactured form, of substantially an equal amount of copper at approximately the same price basis for the raw material provided in the contracts made by the fabricators for the purchase of the raw material. In the primary fabrication of copper and brass, the price of the metal is the controlling factor of cost, additional valuation added by manufacturing being a relatively small percentage. Fabricators quote prices to their customers based on the current cost of copper and must themselves at once cover their sales by buying an equal amount of copper at the quoted price. Otherwise, they are speculating on price. In turn, many customers of fabricators (for example, wholesalers) quote prices to retailers based on the price of copper. It is quite obvious, therefore, that if there had been a further radical decline in price, chaos would have resulted in the industry. Fabricators would have endeavored to cancel their contracts for the purchase of the raw material, because of similar efforts by their customers to cancel the fabricating contracts. The respective producers, having sold their forward production so far in advance, had no reason in this condition of the market to foist upon the market large additional quantities of copper.

The situation of different producers varied. Those who were in an oversold position were generally those producers longest established in the business and whose trade affiliations were, therefore, of the strongest and broadest character. It was important for each producer who had sold out his stock above ground—(1) to catch up with a normal position by filling sales already made and taking no risk of selling more till this was done; (2) not to push his product upon the market when sales could not be made except by reducing price below the average at which his forward sales had been made. This average at the time was approximately 18¢.

It followed naturally that most of the producers who had sold out stock above ground, without any agreement, but actuated solely by the business requirements of each individual, remained out of the market. As already stated, the volume of purchases of copper greatly diminished, beginning in April, 1929, but there was still a sufficient volume to take care of the output of the undersold mines and of custom smelters. The price, therefore, automatically remained at the 18¢ level.

It was to be expected that, in the ordinary course of time, the oversold producers would catch up with their forward sales and would again be in the market actively, and it is probable that the price of copper on their return to the market might have fallen. This situation might have normally occured along in August, 1929. It so happened, however, that at the end of August and the first of September another extraordinary buying movement started, which culminated about the tenth of September, at which time the forward contracts aggregated 650,000,000 pounds of copper. The same situation that had existed in April again developed, although to a lesser degree. By October the production had declined to 350,720,000 pounds, as against deliveries in that month of 364,028,000 pounds.

Throughout the development of the copper industry there have existed many small mines producing from a minimum amount to a substantial quantity of copper, but which are insufficient as separate units either to maintain metallurgical and reduction works for the purpose of extracting and converting the metal to refined form from the ores in which it occurs or to engage in the selling of copper themselves, as they have no direct contact with the metal markets throughout the world and are unable to sustain the expense of establishing separate agencies. To serve this division of the industry through its history, smelters and refineries, established by larger companies, have been built at convenient locations. The crude ores from the mines of these producers are bought upon the basis of the metal content. Such ores become the property of the smelting companies, which reduce and refine them to merchantable metal. Because of the aggregate volume represented by such purchases these smelting companies are in a position to maintain their respective selling agencies which dispose of the metal throughout the world.

Under the practice which prevails in this branch of the business, the metal contents of the ore are purchased upon the basis of the price prevailing, usually at the date of the arrival of the shipment of the ore at the smelting plant where it is to be treated. As these smelting plants are remotely situated throughout the mining sections of this hemisphere and in Europe, a period of from 60 to more than 90 days is required in order to process the metal to the point where it can be delivered as refined copper. The carry during this period involves a risk to the smelting company, and in order to avoid the assumption of a market risk in conducting the business, the practice has been generally followed of endeavoring to sell each day for forward delivery the equivalent of the metal content currently purchased as above in the shape of crude ore. The same reasons that impel the smelting companies to endeavor to sell their daily intake to avoid going into a long position on metal compel them to refrain from selling forward beyond their daily intake as they are unable to ascertain the price at which the metal that would be thus sold would be taken in at their respective plants.

Notwithstanding the producers had sold beyond their available supply of copper, and the consumers had largely over-bought their requirements, thereby exhausting their purchasing power, the custom smelters were unable to participate in forward sales because of the uncertainty of the copper that they would have available for delivery. Upon the cessation of buying, the custom smelters were confronted with the necessity of endeavoring to dispose of their daily intake, which, in October, 1929, represented approximately 20% of the total amount of the current production.

At the time the lack of buying power was emphasized by reason of the imminence of the panic. It was felt that this disappearance of buying power was merely temporary.

To cover this situation, which it was then believed would not continue for more than 30 days, the rules of Copper Exporters, as will be seen from the files of the Commission, were modified by the addition of Section 4 of the Regulations, to the extent of permitting the custom smelters to sell in export trade an amount sufficient to balance their intake. This would undoubtedly have worked out automatically to a balance in the industry had it not been for the financial panic which occurred in October, November and December of the year. During the complete demoralization that followed the panic, deliveries which had averaged up to the end of October 352,493,000 pounds against a production of 360,018,000 pounds, precipitously dropped to 261,220,000 pounds for November and 217,638,000 pounds in December, while production continued at 341,170,000 pounds and 331,456,000 pounds, respectively.

As it became apparent that the financial panic caused a serious curtailment in the deliveries of copper, the industry was confronted with a difficult problem.

The producers were urged by every agency, governmental or otherwise, to maintain production, wages and employment. It was the expected hope that the situation was only temporary, and that if industries could maintain their positions, widespread unemployment and financial distress would be avoided. However, the situation in the copper industry was so serious that no immediate revival in business could be hoped for. The condition of the industry was presented fully to responsible government officials, who were fully advised of the action contemplated and taken by Copper Exporters, Inc. in the adoption of Section 4, and encouraged and approved the same. When, thereafter, it became apparent to the industry that the depression was one of long duration, rather than temporary, the Copper Exporters, over the protest of government officials, terminated the operation of the amendment to the rules. The existence of a completely free and competitive market under these conditions has resulted in the following situation:

The average monthly production for 1930 was 294,930,000 pounds; average monthly deliveries 272,145,000 pounds. Increases of stocks during that year totaled 273,526,000 pounds. This condition was accentuated by a further contrast for the first eight months of 1931 of average production of 256,194,000 pounds as against deliveries of 237,664,000 pounds, and a further increase in stocks of 148,244,000 pounds to September 1, 1931, the last figures available, when stocks had reached the unprecedented total of 1,354,338,000 pounds and price had declined to the current prevailing level of 7¢ per pound, which is below the actual cost of production for most of the units engaged in the industry.

Very truy yours,

——— ———.

EXHIBIT A

COPPER EXPORTERS INC.
25 Broadway, City

#94

OCTOBER 29 1928.

CABLE SENT TO IN ACCOUNT BRUSSELS

29097. Cable follows giving statement to be issued by you to Press

29098. Directors of Copper Exporters Inc. authorized the following statement:

The urgent demand for copper has forced the Copper Exporters Inc. to raise the price of copper for export to 16¼¢ cif. European ports. In the opinion of producers and refiners forming the membership of Copper Exporters Inc. consumers are buying in excess of actual requirements thereby creating the danger of a runaway market. They believe that the increased mine production (Sept. 7000 tons over August and 20,000 tons over January) will be sufficient to satisfy any reasonable demand.

Unfilled orders on the books of producers and refiners as shown by available statistics were 353,300 tons at the end of September as compared with 257,000 at the end of August and have undoubtedly been further increased during this month. It is believed that if buyers would confine their purchases to actual requirements the situation should be relieved by increased mine production coming upon the market.

Exhibit No. 2133

Organization of Copper Institute

MEMBERSHIP

American Metal Company
American Smelting & Refining Company
Anaconda Copper Mining Company
Braden Copper Co.
Calumet & Hecla Cons. Copper Co.
Calumet & Arizona Mining Co.
Kennecott Copper Corporation
New Cornelia Copper Co.
Nichols Copper Co.
Phelps Dodge Corporation
United Verde Copper Co.
Utah Copper Co.

Officers and Personnel of Principal Committee After Organization Was Fully Completed

OFFICERS

F. H. Brownell President
Stephen Birch Vice President
Walter Douglas Vice-President
C. F. Kelley Chairman, Executive Committee
R. R. Eckert Secretary and Treasurer

EXECUTIVE COMMITTEE

C. F. Kelley (Chairman)
J. H. Anderson
R. L. Agassiz
Gordon R. Campbell
L. Vogelstein
F. H. Brownell (ex officio)
Stephen Birch (ex officio)
Walter Douglas (ex officio)

Exhibit No. 2134

[Chart based on following statistical data appears on p. 13462]

World production of copper, by major divisions, 1912–1938 [1]

[In thousands of short tons]

Year	Total	United States	Canada and Newfoundland [2]	Latin America [3]	Africa	Europe	Asia and other
1912	1,100	621	39	166	18	130	126
1913	1,072	614	38	143	25	124	128
1914	1,021	579	37	131	30	121	123
1915	1,187	712	52	147	34	114	128
1916	1,534	971	53	202	44	106	158
1917	1,580	961	56	235	47	118	163
1918	1,569	969	58	271	34	85	152
1919	1,070	605	40	217	34	64	110
1920	1,082	635	39	213	34	53	108
1921	602	238	23	136	42	77	86
1922	996	512	25	236	58	87	78
1923	1,412	754	40	335	80	113	90
1924	1,522	819	50	326	115	120	92
1925	1,590	854	56	334	119	132	95
1926	1,637	878	64	355	108	136	96
1927	1,682	847	71	404	123	140	97
1928	1,894	935	97	478	141	145	98
1929	2,118	1,026	121	519	173	168	111
1930	1,735	711	152	396	182	174	121
1931	1,488	525	146	374	169	158	116
1932	998	255	125	184	155	165	114
1933	1,146	234	148	262	200	189	113
1934	1,401	240	183	374	291	204	109
1935	1,617	380	208	382	296	225	126
1936	1,849	615	211	370	272	246	135
1937	2,504	835	270	564	416	266	153
1938	2,184	553	296	491	396	282	166

[1] Based insofar as possible on blister copper, referred to countries wherein ore originated, with exclusion of copper derived from junk.
[2] Includes Newfoundland only since 1935; prior to that time Newfoundland was included under "Other."
[3] South America, Mexico, and Cuba.

Source: American Bureau of Metal Statistics.

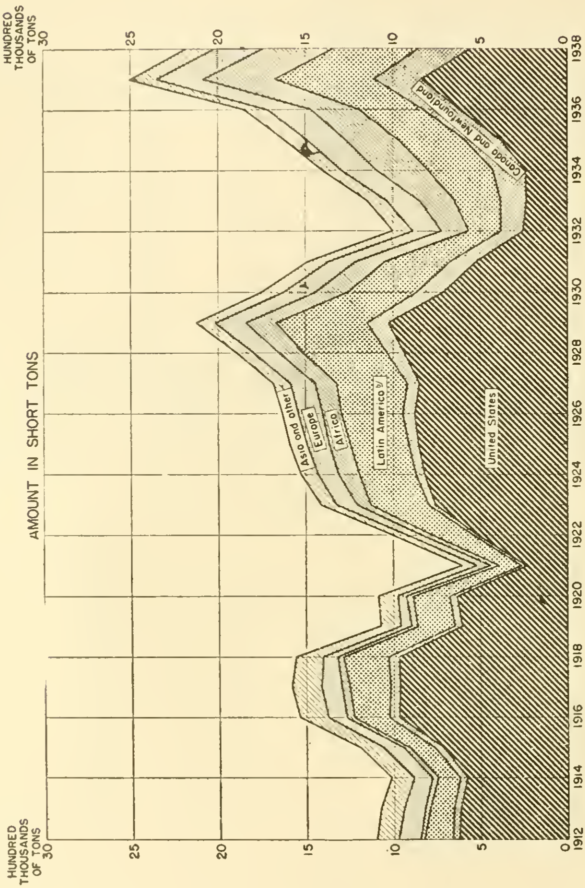
Percentage Distribution of World Production of Copper, by Major Divisions, 1912–1938 [1]

Year	Total	United States	Canada and Newfoundland [2]	Latin America [3]	Africa	Europe	Asia and other
1912	100.0	56.5	3.5	15.1	1.7	11.9	11.4
1913	100.0	57.3	3.6	13.3	2.4	11.6	11.9
1914	100.0	56.7	3.7	12.8	2.9	11.8	12.1
1915	100.0	59.9	4.4	12.4	2.9	9.6	10.8
1916	100.0	63.3	3.4	13.2	2.9	6.9	10.3
1917	100.0	60.8	3.5	14.9	3.0	7.5	10.3
1918	100.0	61.7	3.7	17.3	2.2	5.4	9.7
1919	100.0	56.5	3.7	20.3	3.2	6.0	10.3
1920	100.0	58.7	3.6	19.7	3.1	4.9	10.0
1921	100.0	39.6	3.8	22.5	7.1	12.7	14.3
1922	100.0	51.4	2.5	23.7	5.8	8.7	7.8
1923	100.0	53.4	2.8	23.7	5.7	8.0	6.3
1924	100.0	53.8	3.3	21.4	7.6	7.9	6.0
1925	100.0	53.7	3.5	21.0	7.5	8.3	6.0
1926	100.0	53.6	3.9	21.7	6.6	8.3	5.9
1927	100.0	50.4	4.2	24.0	7.3	8.3	5.7
1928	100.0	49.4	5.1	25.2	7.5	7.6	5.2
1929	100.0	48.5	5.7	24.5	8.1	7.9	5.3
1930	100.0	41.0	8.7	22.9	10.5	10.0	6.9
1931	100.0	35.3	9.8	25.1	11.4	10.6	7.8
1932	100.0	25.6	12.6	18.4	15.5	16.5	11.4
1933	100.0	20.4	12.9	22.8	17.5	16.5	9.9
1934	100.0	17.1	13.1	26.7	20.7	14.6	7.8
1935	100.0	23.5	12.9	23.6	18.3	13.9	7.8
1936	100.0	33.3	11.4	20.0	14.7	13.3	7.3
1937	100.0	33.3	10.8	22.5	16.6	10.7	6.1
1938	100.0	25.3	13.6	22.5	18.1	12.9	7.6

[1] Based insofar as possible on blister copper, referred to countries wherein ore originated, with exclusion of copper derived from junk.
[2] Includes Newfoundland only since 1935; prior to that time Newfoundland was included under "Other."
[3] South America, Mexico, and Cuba.

Source: Prepared by the staff of the T. N. E. C. from figures of the American Bureau of Metal Statistics.

WORLD PRODUCTION OF COPPER
BY MAJOR DIVISIONS a/
1912-1938



SOURCE: AMERICAN BUREAU OF METAL STATISTICS
a/ Based insofar as possible on blister copper, referred to countries wherein ore originated, with exclusion of copper derived from junk
b/ South America, Mexico, and Cuba

EXHIBIT NO. 2135

[Chart based on following statistical data appears on p. 13464]

Share of World Production of Copper Controlled by United States Companies and Their Subsidiaries, Selected Years, 1915–1937 [1]

[Amount in thousands of short tons]

Year	World total		United States		Foreign production controlled by United States companies and their subsidiaries								Remainder	
					Total [2]		Canada		Latin America [2] [3]		Africa			
	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
1915	1,187	100.0	712	60.0	82	6.9	4	0.4	78	6.5	------	------	393	33.1
1920	1,082	100.0	635	58.7	164	15.2	9	0.8	155	14.4	------	------	283	26.1
1925	1,590	100.0	854	53.7	279	17.5	15	0.9	264	16.6	------	------	457	28.8
1929	2,118	100.0	1,026	48.5	441	20.8	21	1.0	420	19.8	------	------	651	30.7
1930	1,735	100.0	711	41.0	319	18.4	23	1.3	296	17.1	------	------	705	40.6
1935	1,617	100.0	380	23.5	364	22.5	7	0.5	326	20.1	31	1.9	873	54.0
1937	2,504	100.0	835	33.3	551	22.0	21	0.8	480	19.2	50	2.0	1,119	44.7

[1] Foreign production controlled by United States companies is based on output of individual companies. The world and United States production figures are based largely on blister output. The remainder was obtained as a difference.
[2] Does not include production of Cuba since figures were not available for Minas de Matahambre, S. A., controlled by the American Metal Co., Ltd.
[3] Mexico and South America.

Source: Compiled by the staff of the T. N. E. C. from figures of the American Bureau of Metal Statistics

Supporting Table to Share of World Production of Copper Controlled by United States Companies and Their Subsidiaries, Selected years, 1915–1937 [1]

[Short tons]

Country and company [2]	1915	1920	1925	1929	1930	1935	1937
Total	82,035	164,519	278,414	441,240	318,809	363,493	550,613
Canada:							
Britannia Mining & Smelting Co., Ltd. (Howe Sound Co.)	4,529	9,081	14,604	21,516	22,633	[3] 7,214	[3] 20,931
Latin America [4]	77,506	155,438	263,810	419,724	296,176	325,470	479,518
Mexico							
Greene Cananea Copper Co. (Anaconda)	8,168	21,836	15,268	29,413	21,212	21,025	22,006
Moctezuma Copper Co. (Phelps Dodge)	11,552	12,151	22,225	21,035	14,352	---------	(5)
South America							
Andex Exploration Co. of Maine (Anaconda)	---------	---------	---------	81,332	47,023	28,641	60,478
Chile Copper Co. (Anaconda)	5,472	55,565	109,758	149,788	89,596	131,994	200,402
Braden Copper Co. (Kennecott)	16,367	32,459	77,060	88,163	80,993	112,010	159,085
Cerro de Pasco Copper Corp	30,228	25,293	39,499	49,993	43,000	31,800	37,547
Soc. Min. Backus y Johnston del Peru (Cerro de Pasco)	5,719	8,134	(6)	---------	---------	---------	---------
Africa							
Mufulira Copper Mines, Ltd. (American Metal)	---------	---------	---------	---------	---------	30,809	50,164

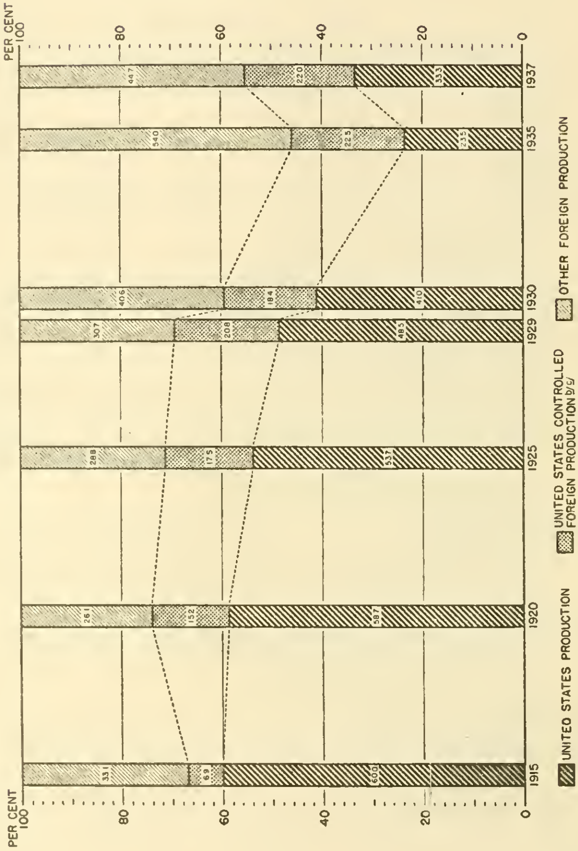
[1] The production of Minas de Matabambre, S. A. in Cuba, controlled by the American Metal Co., Ltd., is not included as figures were not available.
[2] Controlling United States company shown in parentheses as of 1937.
[3] Sales.
[4] Mexico and South America.
[5] Production negligible and included under "United States."
[6] No production reported after 1922.

Source: ***Moody's Industrials*** and American Bureau of Metal Statistics

SHARE OF WORLD PRODUCTION OF COPPER CONTROLLED BY UNITED STATES COMPANIES[a]

SELECTED YEARS

1915-1937



SOURCE: Compiled by the staff of the T N E C from figures of the American Bureau of Metal Statistics

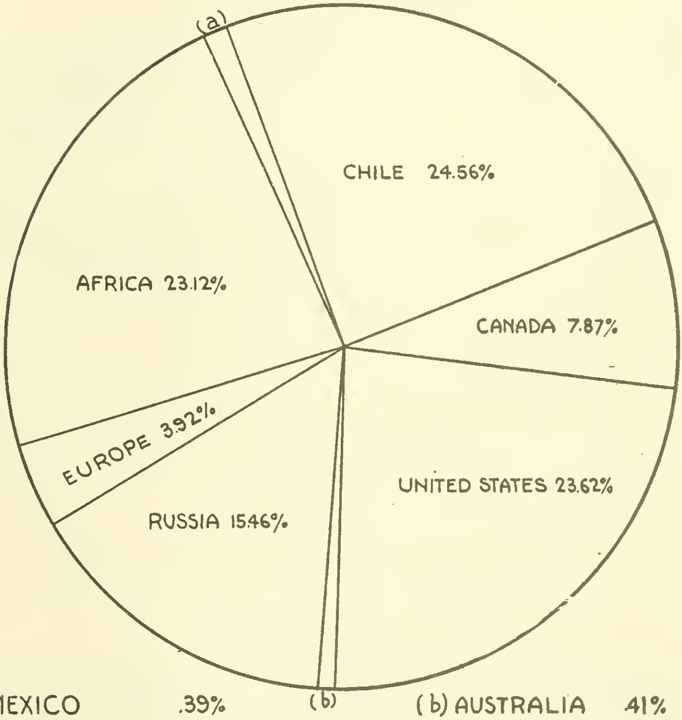
a/ Foreign production controlled by United States companies is based on output of individual companies. The world and United States production figures are based largely on blister output. The remainder was obtained as a difference

b/ Does not include production in Cuba since figures were not available for the company in Cuba controlled by the American Metal Co., Ltd

c/ Mexico and South America

EXHIBIT No. 2136

WORLD COPPER RESERVES BY GEOGRAPHIC LOCATION



(a) MEXICO .39%
CUBA, NICARAGUA, VENEZUELA, PERU .60%

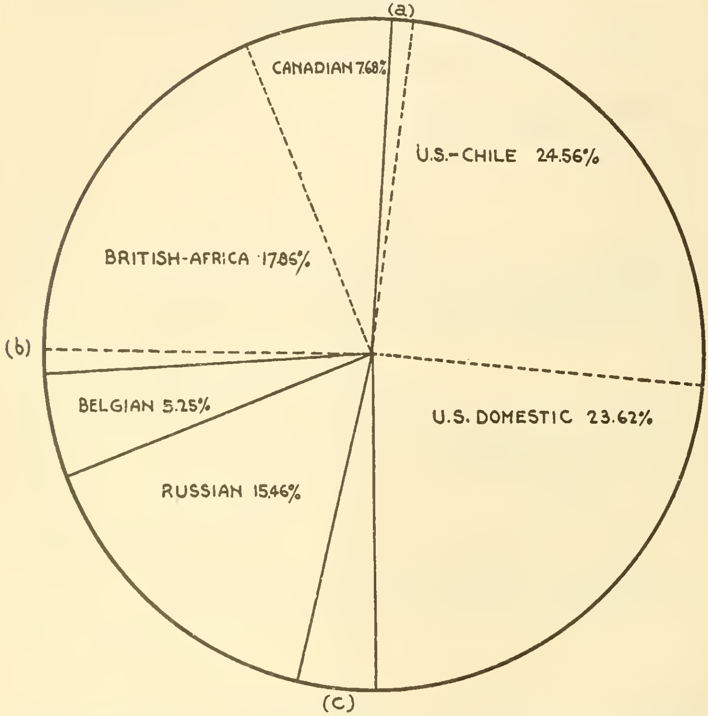
(b) AUSTRALIA .41%
ASIA .05%

TOTAL NORTH & SOUTH AMERICA 57.04%

1939

EXHIBIT No. 2137

WORLD COPPER RESERVES BY CORPORATE CONTROL



(a) UNITED STATES

CANADA	.19%
MEXICO	.29%
CUBA, NICARAGUA	.09%
CYPRUS	.43%
	1.00%

(b) BRITISH

AUSTRALIA	.41%
ASIA	.05%
SO. AMERICA	.33%
EUROPE	.22%
	1.01%

(c) OTHER FOREIGN

GERMAN	1.02%
SPANISH	.69%
NORWEGIAN	.69%
FINNISH	.69%
SWEDISH	.19%
FRENCH (MEX)	.10%
PERUVIAN	.18%
	3.56%

1939

EXHIBIT No. 2138

UNITED STATES OF AMERICA

DEPARTMENT OF JUSTICE

FEBRUARY 13, 1940.

Pursuant to Title 28, Section 661, U. S. Code (Sec. 882, Revised Statutes), I hereby certify that the annexed paper is a true copy of the original record in this Department, of a ten (10) page report by Special Agent W. C. Gorsuch as contained in Section 6 of File No. 60-27-3.

In Witness whereof, I have hereunto set my hand, and caused the seal of the Department of Justice to be affixed on the day and year first above written.

[SEAL] T. D. QUINN,
Administrative Assistant to the Attorney General.

This case originated at New York City N. Y. File #60-227
Report made: New York City.
Date when made: 11/17/30
Period for which made: 11/17/30
Report made by: W. C. Gorsuch
Title: Copper Institute
Character of case: Anti-Trust matter

Synopsis of facts: Meetings at which curtailment of production was discussed and agreed on by producers of copper were held November 3, 1930 at the Midday Club, November 6, 1930 at the Biltmore Hotel, and November 11 and 13, 1930 at the Board Room of the American Smelting & Refining Co., in New York City. Names of those participating in the meetings obtained and reported herein. Agreed plan of curtailment reported herein. Year book of copper industry submitted herewith. Pending Bureau instructions.

P.

Reference: Report of Special Agent W. C. Gorsuch, New York City, 11/15/30.
Details: AT NEW YORK CITY:

F. H. Brownell, President of the Copper Institute and Chairman of the Board of Directors of the American Smelting & Refining Co., 120 Broadway was interviewed at his office, regarding the details of the meetings held by the copper industry for the purpose of curtailing production. Mr. Brownell stated that for some months past, the copper industry has been in a distressed and chaotic condition and that after the vacation periods and upon the return of the various officials of the different copper producing companies, to their business in New York, the existing situation has been discussed informally for the purpose of working out a suitable remedy. Such discussions were purely informal and were in no sense meetings of groups of officials, but were merely discussions arising between the various officers of the companies in the due course of business. Mr. Brownell stated that the present plan for curtailing production grew out of a meeting of the Copper Institute held Monday, Nov. 3, 1930, at 2:30 P. M. in Room C. of the Midday Club, 25 Broad St. This meeting was a regular meeting of the Copper Institute and was the first meeting of the Copper Institute held after the summer vacations.

R. R. Eckert, Secretary of the Institute, notified the members of the Executive Committee of the Institute by phone of the date and place of meeting, and each member of the executive committee was requested to bring along with him to the meeting any others in the industry who would be interested in helping to find a solution to the problem confronting the industry. The following were present at this meeting of the Institute, at the Midday Club.

Name	Address	Company represented
C. F. Kelley	25 Broadway, N. Y.	Anaconda Copper Mining Co., N. Y.
F. H. Brownell, Chairman	120 Broadway, N. Y.	American Smelting & Refining Co., N. Y.
E. T. Stannard, Vice Pres.	120 Broadway, N. Y.	Kennecott Copper Company, N. Y.
L. S. Cates, President	40 Wall St., N. Y.	Phelps Dodge Corp., N. Y.
C. E. Dodge, Vice-Pres.	40 Wall St., N. Y.	" " "
L. Vogelstein, Chairman	61 Broadway, N. Y.	American Metal Co., N. Y.
O. Sussman, Pres.	61 Broadway, N. Y.	" " "
R. C. Stanley, Pres.	67 Wall St., N. Y.	The Internat'l Nickel Co., Inc., Canada.
P. D. Merica	" " " "	" " " "
C. W. Nichols, Pres.	40 Wall St., N. Y.	Nichols Copper Co., N. Y.
R. E. Talley, Pres.	111 Broadway, N. Y.	United Verde Copper Co., N. Y.
Gordon Campbell, Pres.	Calumet, Mich.	Calumet & Arizona Mining Co., N. Y.
Henry B. Paull	40 Wall St., N. Y.	" " " " "
T. Burghardt	25 Broadway, N. Y.	Calumet & Hecla Mining Co., Boston.
W. C. Bennett	40 Wall St., N. Y.	Noranda Copper Co., Montreal, Canada.
H. D. Smith	14 Wall St., N. Y.	Magma Copper Co., N. Y.
W. J. Quigley, Pres.	730 Fifth Ave., N. Y.	Howe Sound Co., Canada.
W. P. Todd	52 Broadway, N. Y.	Copper Range Co., Boston. Quincy Mining Co., N. Y.
F. Pisart	Brussels, Belg.	Union Miniere du Haut Katanga, Katanga.
C. Gutt	" "	Luhumbashi, nr. Elizabethville, Belg. Congo, South Africa.
Chas. Booking, Pres.	25 Broad St., N. Y.	Grandy Consolidated Mining, Smelting & Refining Co., Vancouver, B. C.
C. V. Drew, Vice-Pres.	44 Wall St., N. Y.	Cerro De Pasco Copper Corp., S. America.
A. D. Ledoux	350 Madison Ave., N. Y.	Rio Tinto Co., Spain.
Wm. Sequine	350 Madison Ave., N. Y.	" " "
Howard Smith, Pres.	120 Broadway, N. Y.	Consolidated Coppermines Corp., N. Y.
E. O. Sowerwine	25 Broadway, N. Y.	Anaconda Copper Mining Co., N. Y.
R. R. Eckert, Sec.	25 Broadway, N. Y.	Copper Institute, N. Y.

Mr. BROWNELL stated that the Katanga Mines in So. Africa are owned and operated by the Belgian government, and that F. Pisart and C. Gutt make about two trips a year to the United States in the interest of the Katanga Mines; that while in New York they make their headquarters at the American Metals Corporation, 25 Broadway, in which concern they are also interested. Both Mr. Pisart and Mr. Gutt happened to be in New York at the time the meeting was held in the Midday Club, and they were invited to attend, though Mr. Brownell stated that he does not know who invited them, nor how they were notified of the meeting. Mr. Brownell furnished Agent with a copy of the following resolution, which was submitted to the meeting at the Midday Club, and which was the principal business, at that particular meeting.

"Heretofore there has existed in the copper trade a custom on the part of smelters to buy the copper contents of ores and concentrates, and on the part of refineries to buy the copper contents of blister copper or other impure copper for electrolytic refining, both paying for the same on the basis of a daily quotation (in America most generally that made by the Engineering & Mining Journal, known as the "E. & M. J." quotation), often, if not usually, long prior to the time such copper contents can be made ready for delivery on the market as refined copper.

The trade custom above described grew up historically when mines were small and poorly financed. A generation ago, the amount of copper acquired on a daily quotation basis by United States smelters and refineries probably did not exceed five thousand tons per month. In 1929, it reached nearly fifty thousand tons per month. European smelters and refineries quite generally are accustomed to buy the ores, concentrates, and blister on the same basis of a daily quotation. Gradually in the United States, smelters and refineries engaged in the purchase of ore from North and South America, as well as from Africa, in competition with the European smelters and refineries, adopted the same practice in respect to this product, and the same is now quite universal throughout the copper world.

Time has demonstrated that the custom is fraught with many evils to the industry at large, as well as to the custom smelters themselves.

(1) It causes much larger fluctuations in the price of copper than would otherwise be the case, inasmuch as the smelters and refineries buying copper contents on a daily quotation basis must, in order to protect themselves against loss, sell each day substantially what they take in that day, and at whatever price may be necessary to move the tonnage, since automatically such sales affect the daily quotation basis on which the day's purchases of copper are made.

The copper market buys, not regularly in average amounts, but irregularly in buying waves. The effect is that in dull times of little buying of copper, the price is much more depressed than would otherwise have been the case, because of the

necessity of the sale of this so-called "custom" copper. On the other hand, in an ascending market, the price of copper goes up much more rapidly than would otherwise have been the case, because the smelters and refineries, buying on a daily quotation basis, do not dare to sell ahead of the day's intake, lest the copper thus sold might be bought by them on a higher quotation.

(2) The custom is also fraught periodically with great losses to the smelters and refineries, especially when a period of unusually great prosperity in the industry is followed, as inevitably happens sooner or later, by a relatively sudden cessation of prosperity and a period of sub-normal demand. Prosperous times result in higher prices of copper, which cause an increasingly greater output of mines, and hence tonnage of copper purchased on a daily quotation basis. Copper in process correspondingly increases in quantity, when a sudden fall occurs and a great loss follows for the reason that the fall in price is applicable to a much greater volume of copper than the rise in price applied to, because the latter took place over a much longer period of time. Such abnormal losses of great volume occurred in the crisis years of 1907, 1914, 1918, 1921, and 1930.

It is believed that the copper industry at large will be greatly benefitted and the smelters and refineries saved very large losses if the quantity of copper purchased on a daily quotation basis be limited to the class of copper with which it originated; namely, that produced from small mines of weak financial standing and from mines in which the copper content is a by-product. Mines producing copper in excess of five hundred (500) tons per month should take a position as a producing mine, and custom smelters and refineries should treat their product on what is known as a toll basis; namely, not purchasing the copper contents on some agreed quotation, but rendering their smelting and/or refining services for an agreed charge, producing the refined product within an agreed time and thereafter selling the resultant copper on a commission basis.

Be it, therefore, resolved by the Copper Institute that smelting and refining companies be, and they are hereby, asked, for the good of the industry at large, to agree each with the other, not to enter into any new contracts under which any smelting or refining company obligates itself to buy the copper contents of any ores, concentrates and/or blister or other form of impure copper, for refining, by paying for the same on a daily quotation basis, from any mine producing on an average, copper contents exceeding five hundred (500) tons of copper per month. This clause shall not debar the parties from buying what is generally known as "scrap copper" on the daily quotation basis.

Be it further resolved that the said smelting and refining companies endeavor to unite in buying copper tonnages coming from a mine producing in excess of an average of five hundred (500) tons per month on a toll basis; namely, an agreement to do the smelting and/or refining for a specified consideration, making the copper contents in an agreed-upon form of electrolytic or other grade of refined copper within some time to be stipulated in the contract, and thereafter, selling such copper for the customer on a commission basis at the usual standard rates.

Be it further resolved that foreign custom smelters and refineries be asked to unite in the foregoing trade principle, and in the event of their willingness to do so, that the same be made of universal application. In the event, however, that foreign smelters and refineries do not agree to the method above described, then and in that event the North American smelters and refineries shall be at liberty to compete with the foreign smelters and refineries for those ores, concentrates and/or blister copper which may go either to Europe or to North America for smelting and refining, on any basis that may enable the North American smelters and/or refineries to take the copper as against the European smelters and/or refineries.

Mr. Brownell further stated that after the above resolution was proposed and rather fully discussed, those present then discussed the general question of the present volume of production of copper throughout the world. At this meeting, Mr. Brownell states that Mr. Pisart and Mr. Gutt astonished everyone present by stating that the Katanga Mines are producing 33,000,000 lbs. of copper per month. Mr. Brownell pointed out that the Katanga Mine is a low cost production mine and that its copper is sold in the European markets. He stated that no one present had any idea that the Katanga Mines were producing any such quantity of copper, as the figures given by Mr. Pisart and Mr. Gutt. Mr. Brownell further stated that the question of limitation of production came up, and was discussed, although he has no idea who first raised the question. No definite action was taken at this meeting relative to a limitation of production, and no commitments were made by any of those present representing copper producing companies. It was, however, decided that subsequent meetings would be held to discuss the matter of curtailment of production, and that the meetings would be open, and everybody in the industry would be invited.

The next meeting was held Thursday, November 6th, 1930, at 10:00 A. M., in Room 1938, at the Biltmore Hotel, Madison Avenue & 43rd St. The following were present at this meeting.

Names	Addresses	Companies represented
C. F. Kelley, Pres.	25 Broadway, N. Y.	Anaconda Copper Mining Co., N. Y.
F. H. Brownell, Chairman	120 Broadway, N. Y.	American Smelting & Refining Co., N. Y.
E. T. Stannard, Vice Pres.	120 Broadway, N. Y.	Kennecott Copper Co., N. Y.
L. S. Cates, Pres.	40 Wall St., N. Y.	Phelps Dodge Corp., N. Y.
C. E. Dodge, Vice Pres.	" " "	" " "
L. Vogelstein, Chairman	61 Broadway, N. Y.	American Metal Co., N. Y.
R. C. Stanley, Pres.	67 Wall St., N. Y.	Internat'l Nickel Co., Inc., Canada.
B. W. Nichols	40 Wall St., N. Y.	Nichols Copper Co., N. Y.
R. E. Talley	111 Broadway, N. Y.	United Verde Copper Co., N. Y.
Gordon Campbell, Pres.	Calumet, Mich.	Calumet & Arizona Copper Co., N. Y.
Henry B. Paull	40 Wall St., N. Y.	" " "
R. L. Agassiz, Chairman	Boston	Calumet & Hecla Copper Co., Boston.
W. C. Bennett	40 Wall St., N. Y.	Noranda Copper Co., Canada.
Fred Searles	14 Wall St., N. Y.	Magma Copper Co., N. Y.
W. P. Todd	52 Broadway, N. Y.	Copper Range Co., Boston.
Chas. Bocking, Pres.	25 Broad St., N. Y.	Granby Consolidated Mining, Smelting & Refining Co., Vancouver, B. C.
C. V. Drew, Vice Pres.	44 Wall St., N. Y.	Cerro de Pasco Copper Corp., So. America.
A. D. Ledoux	350 Madison Ave., N. Y.	Rio Tinto Co., Spain
Howard Smith	120 Broadway, N. Y.	Consolidated Coppermines Corp., N. Y.
E. O. Sowerwine	25 Broadway, N. Y.	Anaconda Copper Mining Co., N. Y.
R. R. Eckert, Sec.	25 Broadway, N. Y.	Copper Institute, N. Y.

At this meeting the resolution proposed at the meeting held at the Midday Club and more fully set forth above was adopted and regularly entered upon the records of the Copper Institute. Mr. Brownell stated that there was further discussion at this meeting relative to curtailing production. No committees were appointed and Mr. C. F. Kelley who is chairman of the Executive Committee of the Copper Institute, and who had held the chair at the Institute meeting at the Midday Club, continued to act as chairman at the subsequent meetings, at the Biltmore Hotel, and later. Mr. Brownell further stated that the first meeting at which limitation of production was discussed there were several ideas brought out, one of which was to cut the wages of the employees at the mines and refineries, and to generally cut down on the overhead and operating expenses. This plan was dropped for the reason that practically all the mines are at present running only part time and in such arrangements, the employees are barely making a living wage. A further reduction along this line would be impractical, at the present time. The second plan advanced was that production be shut down for a period of two months or longer. This idea was also discussed and abandoned. The third idea advanced was that production be curtailed to such an extent that the surplus stocks on hand be absorbed.

This idea was modified and a plan of equalizing production to consumption was substituted. To equalize production with consumption it would be necessary to cut down the present production 20,000 tons per month. Mr. Brownell stated that at the first discussion held at the Midday Club, it was seen that the Katanga Mines controlled the situation due to their volume of production and to their low cost of production. Unless Katanga Mines would agree to curtail their production, it would be useless for the American producers to enter into a plan of curtailment among themselves. Therefore, the whole plan hinged upon what action would be taken by the Katanga Mines. Mr. Brownell stated that the only American companies owning low cost production mines are the Anaconda Copper Mining Co., with its Chile Mine located in Chile, and the Kennecott Copper Co., with its Braden Mine, also located in Chile. Both of these companies are able to ship low cost production copper to the European markets and compete with the Katanga Mines. These three companies, the Anaconda Copper Mining Co., the Kennecott Copper Co., and the Katanga Mines entered into a conference or conferences aside from the general conferences being held by all producers and reached some sort of an agreement among themselves. Mr. Brownell stated he does not know what transpired at the meetings held among these three concerns, nor to what extent each agreed to curtail its production. However, at the final conference of all companies, these companies announced that they would absorb their proper proportion of the surplus production, the three companies together agreeing to curtail to the extent of 7,000 tons per month. No one outside of the three companies knows what proportion of this 7,000 tons is being borne by each company.

The next meeting of all producers held for the purpose of discussing curtailment of production, and which was in no sense an Institute meeting, was held Tuesday, November 11, 1930 at the Board Room of the American Smelting & Refining Co., 120 Broadway, New York City. Mr. Brownell stated that inasmuch as his company has the largest Board Room of any of the companies, he tendered its use to the group for the purpose of holding any further meetings. The following were present at this meeting.

Names	Addresses	Companies represented
C. F. Kelley, Pres	25 Broadway, N. Y	Anaconda Copper Mining Co., N. Y.
F. H. Brownell, Chairman	120 Broadway, N. Y	American Smelting & Refining Co., N. Y.
E. T. Stannard, Vice Pres	" " "	Kennecott Copper Co., N. Y.
L. S. Cates, Pres	40 Wall St., N. Y	Phelps Dodge Corp., N. Y.
L. Vogelstein, Chairman	61 Broadway, N. Y	American Metal Co., N. Y.
O. Sussman, Pres	" " "	" " "
P. D. Merica	67 Wall St., N. Y	Internat'l Nickel Co., Canada.
C. W. Nichols	40 Wall St., N. Y	Nichols Copper Co., N. Y.
R. E. Talley	111 Broadway, N. Y	United Verde Copper Co., N. Y.
R. L. Agassiz, Chairman	Boston	Calumet & Hecla Copper Co., Boston.
W. C. Bennett	40 Wall St., N. Y	Noranda Copper Co., Boston.
F. Searles	14 Wall St., N. Y	Magma Copper Co., N. Y.
W. P. Todd	52 Broadway, N. Y	Copper Range Co., Boston.
D. Paine	120 Broadway, N. Y	American Smelting & Refining Co., N. Y.
F. Pisart	Brussels, Belg	Union Miniere du Haut Katanga, Katanga
C. Gutt	" "	Lubumbashi, nr. Elizabethville, Belg. Congo, So. Africa.
C. V. Drew, Vice Pres	44 Wall St., N. Y	Cerro de Pasco Copper Corp., S. Amer.
A. D. Ledoux	350 Madison Ave., N. Y	Rio Tinto Co., Spain
Howard Smith	120 Broadway, N. Y	Consolidated Coppermines Corp., N. Y.
R. Schreiber	40 Rector St., N. Y	Metallgesellschaft, Germany
E. O. Sowerwine	25 Broadway, N. Y	Anaconda Copper Mining Co., N. Y.
R. R. Eckert	" " "	Copper Institute, N. Y.

At this meeting Mr. Pisart and Mr. Gutt announced that Katanga Mine would not enter into a plan of curtailing production unless the Bor Mine in Jugo-Slavia would also agree to curtail its production. Mr. Brownell stated that the Bor Mine sells its copper in the European market and is in competition with the Katanga Mine. However, the Bor Mine is a small concern and is unknown to the American producers. It is believed that the Bor Mine is owned partly by the Jugo-Slavian government and is maintained mainly as a source of supply for military purposes.

The final meeting was held November 13, 1930, at 10:00 A. M. in the Board Room of the American Smelting & Refining Co., 120 Broadway. The following were present at this meeting:

Names	Addresses	Companies represented
C. F. Kelley, Pres	25 Broadway, N. Y	Anaconda Copper Mining Co., N. Y.
F. H. Brownell, Chairman	120 Broadway, N. Y	American Smelting & Refining Co., N. Y.
E. T. Stannard, Vice Pres	120 Broadway, N. Y	Kennecott Copper Co., N. Y.
L. S. Cates, Pres	40 Wall St., N. Y	Phelps Dodge Corp., N. Y.
L. Vogelstein, Chairman	61 Broadway, N. Y	American Metal Co., N. Y.
O. Sussman, Pres	61 Broadway, N. Y	" " "
R. C. Stanley, Pres	67 Wall St., N. Y	Internat'l Nickel Co., Inc., Can.
P. D. Merica	" " "	" " "
C. W. Nichols	40 Wall St., N. Y	Nichols Copper Co., N. Y.
R. E. Talley	111 Broadway, N. Y	United Verde Copper Co., N. Y.
R. L. Agassiz, Chairman	Boston	Calumet & Hecla Copper Co., Boston.
W. C. Bennett	40 Wall St., N. Y	Noranda Copper Co., Montreal, Can.
W. P. Todd	52 Broadway, N. Y	Copper Range Co., Boston. Quincy Mining Co., N. Y.
F. Pisart	Brussels, Belg	Union Miniere du Haut Katanga, Katanga Lubumbashi, nr. Elizabethville, Belg. Congo, So. Africa.
C. Gutt	" "	
A. D. Ledoux	350 Madison Ave., N. Y	Rio Tinto Co., Spain.
Wm. Seguine	350 Madison Ave., N. Y	" " "
Howard Smith	120 Broadway, N. Y	Consolidated Coppermines Co., N. Y.
E. O. Sowerwine	25 Broadway, N. Y	Anaconda Copper Mining Co., N. Y.
R. R. Eckert, Sec	25 Broadway, N. Y	Copper Institute, N. Y.
E. Simon	40 Rector St., N. Y	Metallgesellschaft, Germany.

At this meeting the Katanga Mine representatives announced that the Bor Mines had agreed also to curtail their production in an amount satisfactory to the Katanga interests, all negotiations with the Bor Mine having been carried on by the Katanga representatives direct. At this final meeting, the producers

present agreed that a curtailment of production was necessary to save the industry from further distress. Based upon the present surplus production of 20,000 tons per month, each company submitted to Mr. R. R. Eckert, secretary of the Institute, the amount of curtailment to be undertaken by it. The following list is the present plan of curtailment as arrived at by all companies. This list shows the current monthly production and also shows the agreed future production under the curtailment plan.

Production

	Current Production	Agreed Future Prod. under Curtail. Plan	Decrease
Internat'l Nickel Co	6,000	3,750	
Phelps Dodge Corporation	6,413	5,133	
Calumet & Arizona	3,758	3,159	
United Verde Copper Co	2,670	2,750	
Calumet & Hecla Copper Co	4,500	3,217	
Old Dominion	780	500	
Magma Copper Co	1,494	1,200	
Mohawk Mining Co	525	525	
Consolidated Coppermines Corp	1,170	900	
Copper Range Company	1,250	750	
Quincy Mining Co	500	[1] 400	
Cerro de Pasco Copper Co	5,300	3,300	
Granby Consolidated Mining & Smelting Co	1,775	1,400	
Noranda Copper Co	3,250	2,500	
Matahambre	1,400	1,200	
Britannia	1,850	1,300	
American Smelting & Refining Co	1,800	1,050	
Rio Tinto Co	3,700	2,724	
United Verde Ext	2,014	1,500	
Walker Mining Co	600	500	
Miami Copper Co	3,035	2,000	
	53,784	39,758	14,026
Bor Mines, Jugo-Slavia			640
Anaconda Copper Mining Co	23,630		
Kennecott Copper Corp	22,385		
Katanga Mine	16,500		
	62,515	53,515	9,000
Total	116,299	93,273	23,666

[1] Later changed to 500.

Everyone present understood that this proposed agreement is purely voluntary on the part of all producers and is for the best interest of the industry. After this agreement had been reached, Mr. F. H. Brownell, Mr. C. F. Kelley, and Mr. L. Vogelstein were appointed as a committee to release a notice to the press concerning the action taken as a result of the conference. Mr. Brownell stated that a draft of the press release was drawn up immediately following the final meeting, which draft was typed in his office and then submitted to Col. Wm. J. Donovan, former Asst. Atty. General, for approval. The plan was discussed thoroughly with Col. Donovan and the press release was corrected and redrafted at Col. Donovan's office. It was then taken to the office of Mr. C. F. Kelley, president of the Anaconda Copper Mining Co., and was there again revised and released to the press by Mr. Kelley and himself. Mr. Brownell stated that while Col. Donovan was employed by the group as a whole to pass upon the plan for curtailment of production, and the plan in its entirety was submitted to Col. Donovan before the notice of its adoption was released to the press, that he is of the opinion that each producer attending the conference also referred the matter to their own counsel for an opinion.

In connection with the names of those present at the different conferences, as reported herein, it should be here stated that same were furnished by Mr. R. R. Eckert, Secretary of the Institute, at the request of Mr. F. H. Brownell, and are believed to be correct. There may be an omission, since no record was kept of the meetings, and these lists were compiled by Mr. Eckert from pencilled notations made by him and from memory.

Agent obtained from the American Bureau of Metal Statistics, a copy of its 1929 Year Book, which contains statistics on the copper industry, and which it is believed will be of interest in connection with this investigation. This Year Book is submitted herewith to the Bureau, marked Exhibit #1.

All investigation requested by the Bureau having been completed, this matter will be held in abeyance, pending Bureau instructions.
PENDING.

EXHIBIT NO. 2139

COPPER INSTITUTE,
25 Broadway, New York, January 9, 1931.

Enclosed we hand you copies of minutes of Copper Institute meetings of Nov. 3, 1930 and January 5, 1931 with attachments.

R. R. ECKERT, *Secretary.*

MINUTES

A meeting of the Executive Committee of the Copper Institute was held at the Midday Club, on November 3, 1930, at 2.30 P. M.

Present, Messrs: C. F. Kelley, Chairman, F. H. Brownell, E. T. Stannard, C. W. Nichols, Louis S. Cates, T. Burghardt, R. E. Tally, L. Vogelstein, Gordon R. Campbell.

Also present, Messrs: C. E. Dodge, R. C. Stanley, Henry B. Paull, H. D. Smith, W. P. Todd, C. Gutt, C. V. Drew, Wm. Sequine, E. O. Sowerwine, O. Sussmann, P. D. Merica, W. C. Bennett, W. J. Quigley, F. Pisart, Chas. Bocking, A. D. Ledoux, Howard Smith, R. R. Eckert, Secretary.

The following resolution was adopted;

WHEREAS in the copper industry the prevailing world-wide business depression has resulted in the accumulation of unprecedented reserves of copper and a substantial decrease in the demand for and the consumption of copper, and

WHEREAS under existing conditions these reserves of copper are being increased at a rate in excess of 250,000 of copper per year, and

WHEREAS the fact that the producers of copper will, if conditions continue as at present, be forced to dump these reserves of copper upon the market regardless of the price to be obtained, has driven the cost of copper below the average cost of production, and

WHEREAS the continuance of existing conditions will result in the forced shutting down of many of the copper mines in the United States with resulting unemployment to upwards of 250,000 men, and

WHEREAS it is felt that this situation confronts the industry as a whole and is not limited in its effect to the members of the COPPER INSTITUTE and that therefore the Copper Institute is unable effectively to deal with the situation.

Now, THEREFORE, be it

Resolved that the Executive Committee of the Copper Institute recommends that a meeting of representatives of the entire industry be called to consider such proper and legal plans as will more nearly adjust production to consumption.

The meeting adjourned.

R. R. ECKERT, *Secretary.*

MINUTES

A meeting of the Executive Committee of the Copper Institute was held in Mr. C. F. Kelley's office, on January 5, 1931, at 3.00 P. M.

Present Messrs: C. F. Kelley, Chairman, F. H. Brownell, C. E. Dodge, C. T. Ulrich, L. Vogelstein, T. Burghardt, H. B. Paull, R. E. Tally, R. R. Eckert, Secretary.

The minutes of the previous meeting were approved.

The Committee approved a statement presented by the Secretary, copy of which is attached, setting forth a record of meetings held pursuant to the recommendations of the Executive Committee, at their meeting of November 3, 1930.

The Secretary also presented an opinion by Colonel William J. Donovan, dated November 13, 1930, copy of which is attached, which confirms the oral opinion given by him to representatives of the industry on that date.

The meeting adjourned.

R. R. ECKERT, *Secretary.*

On November 3, 1930, a meeting of the Executive Committee of the Copper Institute was held for the purpose of considering the critical situation of the copper industry. This meeting was held in accordance with a notice sent to all the

members of the Executive Committee on October 28, 1930. The members of the Executive Committee were the following: Mr. F. H. Brownell, Mr. C. F. Kelley, Mr. Stephen Birch, Mr. C. W. Nichols, Mr. Louis S. Cates, Mr. R. L. Agassiz, Mr. R. E. Tally, Mr. L. Vogelstein, Mr. Gordon R. Campbell.

The meeting had been scheduled to be held at Room 551, 25 Broadway, but it was deemed advisable to enlarge the meeting, each member of the Executive Committee being requested to invite anyone in the industry he chose to have attend. It was expected also that Mr. Pisart, representative of the Union Miniere, largest copper group outside of the United States operating in Katanga, Belgian Congo, Africa and having headquarters at Brussels, Belgium, would arrive in this country on his semi-annual visit to the United States. It was known that he felt grave concern over the condition of the industry and was desirous of discussing possible constructive measures of relief. He also was asked to attend the meeting. In order to accommodate the larger number expected, the meeting was changed from 25 Broadway to the Midday Club. In attendance at this meeting were the following:

C. F. Kelley, Pres. Anaconda Copper Mining Co. N. Y.
F. H. Brownell, Chairman, Amer. Smelting & Refining Co. N. Y.
E. T. Stannard, Vice Pres., Kennecott Copper Corporation, N. Y.
L. S. Cates, Pres., Phelps Dodge Corporation, N. Y.
C. E. Dodge, Vice Pres., Phelps Dodge Corporation, N. Y.
L. Vogelstein, Chairman, American Metal Co. Ltd. N. Y.
O. Sussmann, Pres., Matahambre Mines, Cuba.
R. C. Stanley, Pres., Inter. Nickel Co. Canada.
P. D. Merica, Inter. Nickel Co. Canada.
C. W. Nichols, Pres., Nichols Copper Co. N. Y.
R. E. Tally, Pres., United Verde Copper Co., N. Y.
Gordon R. Campbell, Pres., Cal. & Arizona C. Co. N. Y.
Henry B. Paull, Cal. & Arizona C. Co. N. Y.
T. Burghardt, Cal. & Hecla Cons. Copper Co. NY.
W. C. Bennett, Noranda Copper Co. N. Y.
H. D. Smith, Magma Copper Co. N. Y.
W. J. Quigley, Howe Sound Co. Canada.
W. P. Todd, Copper Range Company. Boston.
Quincy Mining Company.
F. Pisart, Katanga, Africa.
C. Gutt, Katanga, Africa.
Chas. Bocking, Pres., Granby, Canada.
C. V. Drew, Vice Pres., Cerro de Pasco, S. Amer.
A. D. Ledoux, Rio Tinto Co. Spain,
Wm. Seguine, Rio Tinto Co. Spain,
Howard Smith, Pres., Cons. Cop'mines Co. N. Y.
E. O. Sowerwine, Anaconda Copper Mg. Co. N. Y.
R. R. Eckert, Secretary, Copper Institute, N. Y.

At that meeting the general situation was discussed. The Executive Committee adopted a resolution recommending the advisability of curtailing the production of copper in order to prevent demoralization. It was determined the situation was such that no action by the Institute could alleviate it but that conditions should be considered by the industry as such. Accordingly, an invitation was given to representatives of all copper producing units requesting them to attend a meeting at the Hotel Biltmore on November 6, 1930. The following were present:

C. F. Kelley, Pres., Anaconda Copper Mining Co. N. Y.
F. H. Brownell, Chairman, Amer. Smelting & Refining Co. N. Y.
E. T. Stannard, Vice Pres., Kennecott Copper Corp. N. Y.
L. S. Cates, Pres., Phelps Dodge Corp. N. Y.
C. E. Dodge, Vice Pres., Phelps Dodge Corp. N. Y.
L. Vogelstein, Chairman, American Metal Co. N. Y.
R. C. Stanley, Pres., Intern. Nickel Co. Canada.
C. W. Nichols, Pres., Nichols Copper Co. N. Y.
R. E. Tally, United Verde Copper Co. N. Y.
Gordon R. Campbell, Pres., Cal. & Arizona Mg. Co. N. Y
Henry B. Paull, Cal. & Arizona Mg. Co. N. Y.
R. L. Agassiz, Chairman, Cal. & Hecla Cons. Copper Co. Boston.
W. C. Bennett, Noranda Copper Co. Canada.
Fred Searles, Magma Copper Co. N. Y.
W. P. Todd, Copper Range Co. Boston,
Chas. Bocking, Pres., Granby Canada.

C. V. Drew, Vice Pres., Cerro de Pasco, S. America.
A. D. Ledoux, Rio Tinto Co. Spain.
Howard Smith, Pres., Cons. Copmines Co. N. Y.
E. O. Sowerwine, Anaconda Copper Mining Co. N. Y.
R. R. Eckert, Sec., Copper Institute, N. Y.

At the meeting, the existing condition of the copper industry was fully set forth. It was pointed out that since the panic of November 1929, the condition in the copper industry has been one of constantly increasing difficulty due to the maladjustment between production and consumption. Notwithstanding a drop of 26.1% in the consumption of copper, as indicated by deliveries during the twelve months ended October 31, 1930, compared with the average for the ten months ended October 31, 1929, the production maintained an average of 303,343,000 lbs. per month. The inevitable result of the maintenance of production while deliveries decreased as above, was an increase during the twelve months of 514,000,000 lbs. to the accumulated stock of copper, which on November 1, amounted to approximately 1,250,000,000 lbs. of which about 770,000,000 were in the form of refined stock, and about 480,000,000 lbs. were crude or blister copper, and that such increase in stock had resulted in the complete demoralization of the industry and in a current price below the average cost of production.

Experience has demonstrated that the stock required to conduct the business under ordinary conditions should be approximately 700,000,000 lbs., of which approximately 200,000,000 lbs. should be carried as refined stock, and the balance as crude. This amount of copper is amply sufficient to take care of the requirements of the industry when business is being conducted upon a normal basis, such as applied prior to the peak demand of 1928 and 1929. Therefore, upon the basis of business as it had maintained in the years immediately preceding 1928, there existed on November 1, 1930, a surplus of more than 500,000,000 lbs. of copper. Notwithstanding, current business had fallen far below that of the years immediately preceding 1928.

The consequence of this excess production resulted in a corresponding decrease in price, until, during the month of October, an average of 9.822¢ per lb. prevailed, and a minimum price of 9.5¢ per lb. for electrolytic copper delivered to New England points was reached. At this level the greater part of copper produced is being sold at considerably less than the cost of production, which, according to information published by the United States Tariff Commission (Senate Document No. 145 71st Congress, 2nd Session) is as follows:

Domestic—Cost per pound

	Percentage of analyzed production			Percentage of analyzed Production	
	1928	1929		1928	1929
Under 8 cents	26	18	12 cents to 13 cents	16	1
8 cents to 9 cents	9	8	13 cents to 14 cents	10	8
9 cents to 10 cents	16	8	14 cents to 15 cents	--------	12
10 cents to 11 cents	12	16	15 cents to 16 cents	--------	12
11 cents to 12 cents	7	13		96	96

Average: 1928, 10.27 cents; 1929, 11.81 cents.

Foreign—Cost per pound

	Percentage of analyzed imports			Percentage of analyzed imports	
	1928	1929		1928	1929
Under 8 cents	35	(1)	12 cents to 13 cents	8	(1)
8 cents to 9 cents	13	(1)	13 cents to 14 cents	7	(1)
9 cents to 10 cents	14	(1)		90	--------
10 cents to 11 cents	9	(1)			
11 cents to 12 cents	4	(1)			

Average: 1928, 10.20 cents.

[1] Not available.

Discussion followed and it was stated that 60% of the world's production of copper is mined outside the United States. The copper market is a world wide market and consequently this foreign produced copper competes directly with domestic copper, both within the United States and abroad. In this regard it was pointed out that the cost of production abroad had not increased as rapidly as in the United States, and that as a result it was estimated that more than 78% of all copper produced in foreign countries was produced at a cost of less than 11¢ per lb. whereas in the United States only about 55% is produced at a cost less than 11¢. Moreover in this country about 25% of copper output is produced at a cost in excess of 14¢ per pound. So far as is known all foreign copper is produced at a cost less than 14¢ per pound.

It was apparent to all that some action in the interest of domestic producers was imperative to correct the situation, and that if conditions that prevailed were permitted to continue, many mining companies would become insolvent and of necessity be compelled to suspend operations, while others could continue only at the risk of jeopardizing whatever available resources they could demand.

Due to these facts it was recognized that the American producers acting alone would be powerless to correct the situation.

Accordingly, it was suggested that the representatives divide themselves into two groups, one representing the small producers and the other representing the larger units of the industry. It was suggested that they canvass the situation among themselves in an effort to arrive at a solution that might best meet the situation. Subsequently, a meeting was held on November 7th, a list of those in attendance not having been taken, and at which time there was a continuance of the discussion as to what should be done, but no conclusion was reached.

This meeting was held at the office of American Smelting & Refining Co., 120 Broadway, New York, N. Y.

Also, a meeting was held on November 11th at the American Smelting & Refining Company, at which the following were present:

C. F. Kelley, Pres. Anaconda C. M. Co. N. Y.
F. H. Brownell, Chairman, American S. & R. Co. N. Y.
E. T. Stannard, Vice Pres., Kennecott Copper Corp. N. Y.
L. S. Cates, Pres. Phelps Dodge Corp. N. Y.
L. Vogelstein, Chairman, American Metal Co. N. Y.
O. Sussmann, Matahambre Mines, Cuba.
P. D. Merica, Inter. Nickel Co. Canada.
C. W. Nichols, Pres. Nichols Copper Co. N. Y.
R. E. Tally, Pres. United Verde Copper Co. N. Y.
R. L. Agassiz, Chairman, Calumet & Hec. C. C. Co. Boston.
W. C. Bennett, Noranda Copper Co. Canada.
F. Searles, Magma Copper Co., N. Y.
W. P. Todd, Copper Range Co. Boston.
D. Paine, Amer. Sm. & Ref. Co. N. Y.
F. Pisart, Katanga, Africa.
C. Gutt, Katanga, Africa.
C. V. Drew, Vice Pres. Cerro de Pasco, S. Amer.
A. D. Ledoux, Rio Tinto Co. Spain.
Howard Smith, Pres. Cons. Coppermines Corp. N. Y.
R. Schreiber Metallgesellschaft, Germany.
E. O. Sowerwine, Anaconda Copper Mining Co. N. Y.
R. R. Eckert, Sec. Copper Institute, N. Y.

At these meetings various remedies were suggested. Some felt that a complete shutdown of mining operations over a period sufficient to permit a readjustment was inevitable. Others felt that they would be compelled to reduce wages in an effort to bring the cost of production down to a level more nearly approximating the selling price in this country, and the cost of production in other countries. It was answered that such drastic measures would be a calamity not only to more than 250,000 men employed directly in the industry and to their families, but also to the communities throughout the mining sections of the country, the inhabitants of which are dependent for their livelihood upon the continuance of operations in the mining industry.

The majority believed that the more sensible and orderly means would be to endeavor to effect a reasonable curtailment of production. This could be brought about without further dislocation of labor and the impairment of the economic condition of the people dependent upon the industry. The matter was viewed much more seriously from the standpoint of the employees and communities dependent upon the industry than it was from the possible interest of the share-

holders, whom it was realized could not in any event be benefitted except by a general revival of business.

In these circumstances the representatives of each of the companies present expressed themselves as being willing to do what each reasonably could to help right the situation. Most of the gentlemen present stated that they would have to consult their boards of directors or other officers of their respective companies, and that in the meantime the situation should be canvassed to see approximately what could be done.

A meeting was finally held on November 13th, at 10 A. M. in the American Smelting & Refining Company Board room at 120 Broadway. The following were present:

C. F. Kelley, Pres., Anaconda Copper Mining Co. N. Y.
F. H. Brownell, Chairman, Amer. Smelting & Refining Co. N. Y.
E. T. Stannard, Vice Pres., Kennecott Copper Corp. N. Y.
L. S. Cates, Pres., Phelps Dodge Corp. N. Y.
L. Vogelstein, Chairman, American Metal Co. N. Y.
O. Sussmann, Pres., Matahambre Mines, Cuba.
R. C. Stanley, Pres., Inter. Nickel Co. Canada.
P. D. Merica, Inter. Nickel Co. Canada.
C. W. Nichols; Pres., Nichols Copper Co. N. Y.
R. E. Tally, Pres., United Verde Copper Co. N. Y.
R. L. Agassiz, Chairman, Calumet & Hecla C. C. Co. Boston.
W. C. Bennett, Noranda Cop. Co. Canada.
W. P. Todd, Copper Range Co. Boston.
F. Pisart, Katanga, Africa.
C. Gutt, Katanga, Africa.
A. D. Ledoux, Rio Tinto Co. Spain.
Wm. Seguine, Rio Tinto Co. Spain.
Howard Smith, Pres., Cons. Coppermines Corp. N. Y.
E. O. Sowerwine, Anaconda Copper Mining Co. N. Y.
R. R. Eckert, Sec., Copper Institute, N. Y.
E. Simon, Metallgesellschaft, Germany.

At this meeting of November 13th, the opinion was generally expressed that in order to safeguard the industry and to insure the protection of its employees, it was essential to recognize the danger resulting from over-production, and that this danger could be met only by each producer making such reduction as he felt the interest of his stockholders, his employees and his situation would permit him to make. It was pointed out that curtailment was inevitable because unless the present situation was corrected, such curtailment would come by shutting down of plants during the period, or by the closing of plants due to insolvency. It was stated that rather than have curtailment come by this disorderly method, it was advisable that it should come by the intelligent and prudent action of each individual producer.

Thereupon Mr. R. R. Eckert was designated as secretary of the meeting. Each producer present was requested to state to the secretary his current production and what curtailment if any in that production he expected to make. Certain producers stated that because of the circumstances peculiar to their plants or to the community in which they operated, they intended making no reduction. There was no allocation of production or curtailment made.

The proposal of each individual was then given to the secretary. The amount of curtailment of the large producers and the small producers was segregated by groups. The entire amount of curtailment totalled approximately 23,000 tons. Of these 13,991 tons were produced by companies operating in foreign countries; 6,075 tons by companies operating in the United States of America and 3,500 tons by companies operating both within and without the United States of America. It was estimated that the excess production exceeded 20,000 tons of copper per month.

The question having been discussed as to the interpretation that might be placed upon this action by the federal government, certain of the producers sought and received advice from their counsel and were advised that the contemplated action did not constitute a violation of law. Thereafter, the entire program and course of conduct of the meeting, and the action taken, were submitted to Colonel William J. Donovan. He was advised that there was no common date fixed for the beginning of curtailment, no formal agreement, written or oral, as to the amount of curtailment or the period of curtailment; nor any uniform or fixed percentage of reduction of production, that there was no implied or expressed agreement as to price; that there was no promise or obligation upon any producer that would prevent his taking any individual action which he might see fit to

take at any time and that any limitation made was to continue only to meet the existing emergency and only so long as the present sub-normal demand for copper continued or so long as each individual company in its own interest deems it was desirable to do so. It was frankly stated to counsel that while there was no agreement as to reduction and no attempted penalty for the failure of a producer to reduce, either in whole or in part, nevertheless, it was felt that the recognition of the condition of the industry and the sense of responsibility on the part of the individual producer would guide him in reducing to safeguard the best interest of his stockholders and employees.

Colonel Donovan then advised that due to the circumstances peculiar to the industry and the emergency which confronted it, the action taken was not violative of any law. He stated that his opinion was based upon the fact that present production is far in excess of present requirements, with resultant creation of excess stock; that the reduction made by each individual member was purely voluntary and without coercion or compulsion; that other than a sense of responsibility to meet fully his obligation to the industry in the present crisis, each producer was free to take any individual action which he might see fit to take at any time. He further stated that he was influenced in his decision by the fact that there was no agreement to fix prices; or to restrain trade or to lessen competition; that the stock now on hand totalled approximately 625,000 tons; and that the estimated reduction will not substantially if at all reduce production below present consumption, so that under existing conditions, that vast reserves of copper will not be materially reduced, if at all. He stated that a further reason for his opinion was that present stocks plus the net production after the proposed individual curtailments are more than ample to satisfy any reasonably foreseeable demands, and that reduction is to operate only during the existing emergency and is entered into and confined in good faith to the purpose of meeting the present business disaster and depression, and to forestall if possible, a complete shutdown of many mines with the attendant distress and suffering to several hundred thousand individuals that particularly in this period of great unemployment would inevitably follow.

Exhibit No. 2140

(In writing:) For Release Friday A. M., Nov. 14, 1930. 60–27–3–166.

Statement of Copper Institute

Under the auspices of the Copper Institute, a number of conferences have been held during the past two weeks at which was represented more than ninety per cent. of the copper production of the world. At these meetings, the present critical status of the industry was considered and discussed.

From this discussion it appeared that production, which in 1929 was stimulated to meet the peak demand of that year, has continued at a level higher than consumptive demand under the existing conditions of world wide depression. The result has been the constant accumulation of stocks beyond any possibility of being liquidated under current conditions.

Due to this fact and to the unforeseen falling off in demand due to the present industrial depression, the price of the metal has declined until it has reached a point below the average cost of production. The industry must face the fact of the necessity of curtailment of production. This curtailment can come in only one of two ways—either by the inevitable total suspension of many of the higher cost units, causing unemployment at mines, mills and reduction works with resultant distress in communities throughout the mining section of the United States, or by the orderly reduction by the various units of the industry. It is hoped that by pursuing the latter method, there will be brought about an equalization of current production to the consumptive demand without further addition to the already burdensome stocks that are jeopardizing the industry.

The facts are as follows:

On the 1st of January, 1929, by way of comparison, the total stock of refined copper, as reported by the American Bureau of Metal Statistics, amounted to	65, 466 short tons.
On January 1, 1930, this stock had been increased to	171, 320 " "
On November 1, 1930, the latest date at which stocks are reported by the same authority, the total amounted to	364, 930 " "
indicating a current excess production throughout the present year of approximately	20, 000 " "

of copper per month.

Of the present world's output of copper, about sixty per cent is produced outside the United States and about forty per cent within the United States.

After a survey of the entire situation, the Copper Institute adopted a recommendation to the industry, urging that, in its interest and in the interest of all dependent upon it for employment and subsistence as well as of the public, so long as the present condition continues, such a reduction be made in current production as will prevent the increase of the existing stock.

The present situation in the industry, together with all its surrounding facts and circumstances, have been fully presented to counsel. We have been advised that the recommendation of the Institute is not violative of the law for the reasons that the present production is in excess of normal and reasonable market requirements with resultant creation of excess stocks and that there is no price fixing agreement. That the reduction made by each individual member is purely voluntary and entirely without coercion or compulsion, that in view of the abnormal surplus stock now on hand and of the fact that the recommended reduction will not materially reduce that surplus, that present stocks plus the suggested production are more than ample to satisfy any possible demand, and that the reduction is to operate only during the existing condition and is entered into and confined in good faith to the purpose of meeting the present business disaster and depression.

Exhibit No. 2141

Opinion in re Legality of Reduction in the Production of Copper

Dated, November 13, 1930.

William J. Donovan

Law Offices of Donovan and Raichle
41 Broad Street, New York, N. Y.

November 13, 1930.

Copper Institute,
25 Broadway, New York, N. Y.

Gentlemen. We have considered the question which you have submitted to us as to whether under the circumstances outlined below, the proposed reduction in the production of copper will result in a violation of the Sherman Act (26 Stat. 209). The exact question presented has never been directly passed upon by the courts and for that reason we have set forth in some detail the facts which we consider pertinent and the reasons which we believe sustain our conclusion.

THE FACTS

More than 60% of the world's annual supply of copper is mined outside the United States. The copper market is a world-wide market and consequently this foreign produced copper competes with copper mined in the United States.

The accumulated world's stocks of copper have increased from 349,572 tons on January 1, 1928 to 625,142 tons on November 1, 1930. The rate of increase during this period is reflected in the following table:

Accumulated copper stocks on hand

Date	*Pounds*
Jan. 1, 1928	699, 144, 000
Jan. 1, 1929	663, 548, 000
Jan. 1, 1930	932, 568, 000
Feb. 1, 1930	991, 874, 000
Mar. 1, 1930	1, 044, 488, 000
Apr. 1, 1930	1, 095, 794, 000
May 1, 1930	1, 201, 186, 000
June 1, 1930	1, 203, 730, 000
July 1, 1930	1, 192, 006, 000
Aug. 1, 1930	1, 175, 530, 000
Sept. 1, 1930	1, 205, 424, 000
Oct. 1, 1930	1, 233, 016, 000
Nov. 1, 1930	1, 250, 284, 000

During the past twelve months the production of copper has exceeded deliveries at an average rate of 21,312 tons per month. Statistics of the Copper Institute indicate that present production is approximately 20,000 tons per month in excess of deliveries and that stocks of copper are increasing at this rate.

The effect of the continued accumulation of these copper stocks can best be forecast by reference to the previous experience of the industry. A comparable situation was presented at the time of the business depression of 1921 when copper stocks reached the record total of 660,291 tons. This was largely due to the carry-over from the high level of production during wartime, together with the large amounts of salvaged copper coming on the market and the sudden stoppage in buying at the time of the depression. As a result the price of copper was forced below the average cost of production and there was a complete shutdown of most of the American mines for a period of approximately one year. Operations were resumed before stocks had been reduced to a fair working supply in order to furnish employment to communities entirely dependent upon the copper mines for support.

In the peak month of April, 1929, the world's production of copper amounted to 196,820 tons. In view of the experience of the industry during the depression of 1921, certain of the American producers acting individually, reduced their respective outputs. But in spite of these reductions the surplus stocks of copper continued to increase for the reason that the reductions in this country were offset by a subnormal demand and by an increased production of copper abroad. The result of the adoption of this policy was soon evident. By September, 1930, the output of American mines ahd decreased to 59.6% of that for April, 1929, whereas the production of Canadian mines showed an increase of 104.4% and the production of the Katanga coppei mines, an increase during the same period of 22.8%. It was evident that so long as the foreign producers continued to take advantage of this policy, that the accumulation of surplus stocks would continue.

The market for copper is world-wide. The metal is consumed in various lines of manufacture and industry, and there is very slight, if any, preference for any particular brand of copper, nor does the origin of the copper, as a general rule, make any substantial difference in its saleability.

The United States participates substantially in the export copper business of the world and, to a lesser extent, copper produced without the United States flows into and is disposed of in the domestic market.

In order, therefore, for any curtailment program to be effective, it is essential that the industry must act as a whole. No producer or group of procduers occupies a sufficiently dominant position in the industry to bring about a correction of over-production during a period of subnormal consumption acting on their own independent volition. In the case of the Katanga copper mines of Africa, more than 51% of the stock of the producing company is owned by the Kingdom of Belgium and the policy of Belgium in developing the mines is greatly influenced by, and is often subordinated to, a colonization policy under which it is attempting to transfer the surplus population of Belgium to that part of the Belgium Congo suitable for white population. The low cost of producing copper in Canada is largely due to the finding of other metal in conjunction with its copper deposits.

The continued accumulation of surplus copper has driven the price of copper from 18¢ per pound in April, 1930, to 9½¢ per pound in November, 1930. This is the lowest price copper has reached during this century, the previous low price being 11½¢ per pound reached during the depression period of 1921. The existing price level is below the average cost of production and consequently many of the producers of copper in the United States are operating at an actual loss. Many of these mines have so far refrained from shutting down, not only because this would involve a greater loss than that now being suffered, but also because amny employees and mining communities are dependent upon the copper industry for support. Nevertheless the continuance of present conditions of increasing surplus supplies of copper threatened the industry with disaster and resulting in a price below the average cost of production will force the higher cost mines to close. Since most of these mines are located in the United States, the resultant injury to the industry will be felt here rather than abroad.

We understand that the growing realization that the industry was facing a crisis impelled your Executive Committee to call a meeting for the purpose of dealing with the situation. At that meeting the critical condition of the copper industry was discussed. It was concluded that the situation confronted the industry as a whole and that no action by the Copper Institute alone could relieve it.

This Committee adopted resolutions recommending the advisability of curtailing the production of copper and extended an invitation to representatives of

all copper producing units to attend a series of meetings at which the general situation was to be discussed.

Thereafter several meetings were held at which the facts stated above were reviewed and various remedies were suggested. These meetings were attended by representatives of practically all of the large producers of copper in the world. The situation was considered to be more serious from the standpoint of the employees and the communities dependent upon the industry than from the point of view of the shareholders for it was realized that the shareholders in any event could not benefit materially except by a general revival of business.

A final meeting was held on November 13, 1930. The opinion was then generally expressed that in order to safeguard the industry and to insure the protection of its employees, it was essential to recognize the danger resulting from overproduction and that this danger could be met only by each producer's making such reduction as he felt the interest of his stockholders, his employees, and his situation would permit him to make. It was pointed out that curtailment was inevitable because unless the present situation was corrected, such curtailment would come by the shutting down of plants during the period of subnormal demand or by the clsoing of plants due to insolvency. It was stated that rather than have curtailment come by this disorderly method, it was advisable that it should come by the intelligent and prudent action of each individual producer.

Each of the representatives of the various copper companies represented at the meeting stated his current production of copper and what decrease, if any, he expected to make in that production. Certain producers stated that because of circumstances peculiar to their plants or to the communities in which they operated, they intended making no reduction. The amount of reduction which the various producers of copper stated they expected to make, totalled in the aggregate approximately 23,000 tons per month. Of this total the companies producing copper outside the United States indicated that they expected to reduce their output approximately 13,991 tons per month. Those in the United States stated that they intended reducing their production 6,075 tons per month and those companies operating both within and without the United States approximately 3,500 tons per month. It is estimated that if each producer curtails his output as indicated, the production of copper will be approximately equal to the present demand for copper.

There was no common date fixed for the beginning of this curtailment and no formal agreement written or oral as to the amount or the period of curtailment. There was no promise by or obligation upon any producer that would prevent his taking any action which he might see fit to take at any time. There was no penalty or criticism for the failure of a producer to decrease his production although it was felt that the recognition of the problems facing the industry and the sense of responsibility on the part of the individual producer would guide him in carrying out his stated reduction if the period of subnormal demand for copper continued and in increasing his production when conditions warranted it.

THE SHERMAN ACT

The facts which you have presented raise two fundamental questions under the Sherman Act: (1) Will the contemplated limitation of production directly restrain interstate trade and commerce in copper, and (2) Assuming that interstate trade and commerce in copper is directly involved, will the restraint imposed be undue and unreasonable?

We shall first discuss question (2) whether even though interstate commerce is directly affected, the restraint involved is unreasonable.

In general terms, The Sherman Act forbids restraints of trade and monopoly. It does not, however, condemn every contract or combination which restrains or eliminates competition between the parties. The Sherman Act was drawn in the light of the common law conception of restraints of trade and therefore includes only such contracts and combinations as, by reason of their intent or the inherent nature of the contemplated acts, prejudice the public interest by *unduly restricting competition or unduly obstructing the course of trade. Standard Oil Co.* v. *United States*, 221 U. S. 1; *American Tobacco Co.* v. *United States*, 221 U. S. 106.

In *United States* v. *Addystone Pipe Co.*, 85 Fed. 271, the Court, in an opinion written by the late Chief Justice Taft, discussed the meaning of the "rule of reason" and declared that at common law and under the Sherman Act:

"The main purpose of the contract suggests the measure of protection needed and furnishes a sufficiently uniform standard by which the validity of such restraints may be judicially determined. In such a case, if the restraint exceeds the necessity presented by the main purpose of the contract, it is void for two

reasons: First, because it oppresses the covenantor, without any corresponding benefit to the covenantee; and second, because it tends to a monopoly. But where the sole object of both parties in making the contract as expressed therein is merely to restrain competition, and enhance or maintain prices, it would seem that there was nothing to justify or excuse the restraint, that it would necessarily have a tendency to monopoly, and therefore would be void. In such a case there is no measure of what is necessary to the protection of either party, except the vague and varying opinion of judges as to how much, on principles of political economy, men ought to be allowed to restrain competition. *There is in such contracts no main lawful purpose, to subserve which partial restraint is permitted, and by which its reasonableness is measured, but the sole object is to restrain trade in order to avoid the competition which it has always been the policy of the common law to foster*" (pp. 282, 283).

In *Chicago Board of Trade* v. *United States*, 246 U. S. 231, Mr. Justice Brandeis defined the "rule of reason" as follows:

"The true test of legality is whether the restraint imposed is such as merely regulates and perhaps thereby promotes competition or whether it is such as may suppress or even destroy competition. To determine that question the court must ordinarily consider the facts peculiar to the business to which the restraint is applied; its condition before and after the restraint was imposed; the nature of the restraint and its effect, actual or probable. The history of the restraint, the evil believed to exist, the reason for adopting the particular remedy, the purpose or end sought to be attained, are all relevant facts. This is not because a good intention will save an otherwise objectionable regulation or the reverse; but because knowledge of intent may help the court to interpret facts and to predict consequences."

In *United States* v. *American Tobacco Co.*, 221 U. S. 106, 177, the contention was made on behalf of the government that the Sherman Act condemned all contracts and combinations directly restraining commerce, whether the restraint imposed was reasonable or not. In rejecting this contention the Supreme Court stated:

"Thus the Government, for the purpose of fixing the illegal character of the original combination which organized the old American Tobacco Company, asserts that the illegal character of the combination is plainly shown because the combination was brought about to stay the progress of a flagrant and ruinous trade war. In other words, the contention is that as the act forbids every contract, and combination it hence prohibits a reasonable and just agreement made for the purpose of ending a trade war."

We have quoted from these decisions at some length for the reason that they fairly set forth the policy of the law believed to be applicable to the question which you have submitted.

Applying these general principles of law to the actions of the producers of copper, it appears that: Accumulated surplus copper stocks threatened the American copper industry with disaster. During the present period of industrial depression, these stocks were increasing at the rate of approximately 255,000 tons per year. Were such conditions to continue, a complete shut-down of the high cost American mines would be inevitable. The industry as a whole could not hope to continue indefinitely to produce copper and at the same time build up additional reserves. The primary purpose of the producers was not therefore to monopolize the production of copper or to increase the price; the controlling purpose was to prevent the complete break-down of the American copper mining industry with resultant unemployment and industrial chaos. That is a lawful purpose.

Moreover the action taken did not exceed what was reasonably necessary to protect the American producers. Beginning in 1929 several American producers had decreased production in the hope that the further building up of unneeded surplus copper reserves would be retarded. The net result however was that the low cost mines of Canada and Africa immediately increased their production so that the building up of copper stocks continued almost unabated. It became evident that the American producers were helpless to remedy the situation without the cooperation of the foreign producers. Consequently meetings attended by representatives of all the large copper producers in the world were called for the purpose of discussing pertinent facts relative to overproduction. After such discussion, some producers indicated that they expected to curtail their respective productions. It is probably true that these statements were made in the expectation and belief that other producers would do likewise. However, it is our understanding that there is no agreement or understanding which would prevent any producer from taking any action he sees fit to take at any time.

We find support for the legality of the action taken in the well-reasoned case of *Oliver* v. *Kilborn*, 52 Fed. 562. The opinion in this case carefully and accurately reviews the applicable common law doctrines and we believe that it correctly states the precise test of legality by which the action of the producers of copper is to be judged. We are accordingly setting forth the facts at some length. In that case the plaintiffs had agreed not to operate their plants for five years for the manufacture of certain hinges. In consideration thereof, eight other firms or corporations in various states agreed to pay to the plaintiff a sum equal to 3½% of the net sale of all such hinges. It was also agreed that if any of the parties in any way increased the facilities used in the manufacture of hinges, the agreement should become void. The plaintiff sued to recover the amount due under the agreement and for damage for an alleged breach of the contract by the defendant in increasing his facilities for the manufacture of hinges. In sustaining a demurrer holding the agreement invalid, the Court clearly indicated that under other circumstances such an agreement would be valid. After an exhaustive review of Common Law precedents, the Court stated that:

"It is not intended by this to say, whether or not in an emergency of an overstock, manufacturers or miners may stipulate for handling their works or mines in a specific manner, or for shutting them down in whole or in part, each for such limited time as would ordinarily enable a congested market to relieve itself; but a contract extending over a period of five years, intended, like this at bar, for restricting production, and absolutely binding manufacturers and dealers, while still retaining their plants and establishments, to operate them in a particular way, or to shut them down in whole or in part, is such an incumbrance on the freedom of individual action, necessary to the public good, as to be invalid."

We are therefore of the opinion that the contemplated curtailment of the production of copper will not unduly restrain the freedom of trade.

We come now to consider the facts presented with reference to their effect upon interstate commerce. The Sherman Act is concerned only with restraints which directly and unreasonably restrain interstate commerce.

The Supreme Court of the United States has repeatedly held that contracts and combinations dealing solely with the production of commodities, are not directly concerned with interstate commerce. In *United Leather Workers* v. *Herkert*, 265 U. S. 457, 471, the Supreme Court, after an exhaustive consideration of the cases, stated that:

"This review of the cases makes it clear that the mere reduction in the supply of an article to be shipped in interstate commerce, by the illegal or tortious prevention of its manufacture, is ordinarily an indirect and remote obstruction to that commerce. It is only when the intent or necessary effect upon such commerce in the article is to enable those preventing the manufacture to monopolize the supply, control its price or discriminate as between its would-be purchasers, that the unlawful interference with its manufacture can be said directly to burden interstate commerce."

See also *Coronado Co.* v. *United Mine Workers,* 268 U. S. 295, 310.

In the *United Leather Workers case*, the Court referred to the leading case of *United States* v. *E. C. Knight Co.*, 158 U. S. 1, which involved a virtual monopoly of the manufacture of sugar. The proof showed acquisitions of stock in sugar manufacturing companies in order to control its making, but there was no proof of an intent to monopolize or restrain interstate commerce in sugar. The Court held that the acts of the defendant bore no direct relation to commerce between the states and that the object of the combination was private gain in the manufacture of the commodity and not through the control of its sale. While the broad language used by the Court in the *Knight case* has been limited by subsequent opinions, the decision itself has been repeatedly approved by the Supreme Court for the reason that there was "no combination or agreement in terms regarding the future disposition of the manufactured article, nothing looking to a transaction in the nature of interstate commerce." (Mr. Justice Peckham in *Addystone Pipe & Steel Co. case*, 195 U. S. 211, 240).

Even if we assume that the facts above set forth indicate a definite agreement to limit the production of copper, it is equally evident from those facts that there was no intent to monopolize the supply of copper or to control its price. Nor will the action taken have that necessary effect. If all contemplated reductions in production are made, there will still be sufficient current production to meet the present demand for copper. The net effect of the limitation will be merely to prevent the further building up of the vast reserves of copper now on hand. It will not materially reduce these stocks of copper. Nor will the contemplated

action have the intended or necessary effect of decreasing the amount of copper shipped for sale in interstate commerce for even if all reductions are made, the production of copper will be sufficient to meet the existing demand and it is expected that the respective companies will continue their announced policies only so long as the present condition of subnormal consumption continues. We do not ignore the economic proposition that under certain circumstances limitations of production will possibly result in an enhancement of price, but we are of the opinion that under the facts and circumstances of the present case, the effect of the action taken by the copper producers on prices in transactions in interstate commerce will be limited and always incidental and not that direct and necessary and or intended effect which the Act contemplates.

In *National Association of Window Glass Manufacturers* v. *United States*, 263 U. S. 403, it was held that where an agreement affecting production was entered into purely as a defensive measure to avert an impending industrial disaster, the restraint upon interstate commerce was indirect and incidental to a controlling and lawful purpose, and therefore not unreasonable. It appeared in that case the hand-blown glass industry was rapidly being displaced by factories producing glass by machine. At the time the suit was instituted by the Government, there were not enough men to permit the hand-blown glass factories to run continuously during the working season. It was pointed out that to work under manned cost the same in fuel and facilities as to work fully manned and therefore meant a serious loss. To meet this situation all of the manufacturers of hand-blown window glass and representatives of the National Window Glass Workers made an agreement whereby in effect all the available labor was apportioned to certain of the factories for a part of the season and to the others for the remainder. In upholding the agreement, the Supreme Court said:

"The purpose of the arrangement is to secure employment for all the men during the whole of the two seasons, thus to give all the labor available to the factories and to divide it equally among them. From the view that we take, we think it unnecessary to explain how the present system sprang from experience during the war when the Government restricted production to one-half of what it had been and an accident was found to work well, or to do more than advert to the defendants' contention that with the means available the production is increased. It is enough that we see no combination in unreasonable restraint of trade in the arrangements made to meet the short supply of men." At page 413.

We recognize that the language used by the Supreme Court in the *Maple Flooring case*, 268 U. S. 563, might be urged as indicating that the situation here presented falls within the condemnation of the law. In that case the Court was discussing the rule laid down in the cases of *Eastern States Lumber Association* v. *United States*, 234 U. S. 600, *American Column and Lumber Company*, 257 U. S. 277, and *United States* v. *American Linseed Oil Co.*, 262 U. S. 371.

Mr. Justice Stone, in his opinion, referred to these cases as follows:

"The Court held that the defendants in those cases were engaged in conspiracies against interstate trade and commerce because it was found that the character of the information which had been gathered and the use which was made of it led irresistibly to the conclusion that they had resulted, or would necessarily result, in a concerted effort of the defendants to curtail production or raise prices of commodities shipped in interstate commerce. The unlawfulness of the combination arose not from the fact that the defendants had effected a combination to gather and disseminate information, but from the fact that the court inferred from the peculiar circumstances of each case that concerted action had resulted, or would necessarily result, intending arbitrarily to lessen production or increase prices."

In order to judge the pertinency of this language it is necessary to consider it in the light of the facts presented to the Court in each of the cases cited.

The *Eastern States Lumber Association* and the *American Linseed Oil Company cases* were not concerned with efforts to linit production by agreement.

In the *American Column & Lumber case* the opinion of the Court "rests squarely on the ground that there was a combination on the part of the members of the Association to secure concerted action in curtailment of production and increase of price, which actually resulted in a restraint of commerce producing increase of price." (268 U. S. 581). The increase in price did not follow incidentally from reduced production, but was the primary purpose of the agreement. We recognize that a combination to establish or enhance the price of an article moving in interstate commerce directly affects that commerce. But an act which by its intended and necessary effect is limited to production only is not a direct burden upon interstate commerce. The *American Column & Lumber case* is therefore entirely consistent with those cited for the reason that in the American Column

case the limitation of production was made not to meet an emergency, but to bring about a scarcity of product and thereby increase prices. The activities condemned by the Court were not limited in their intended effect to production but were intended to increase the price of commodities in interstate commerce. For this reason the case is distinguishable from the facts which you have presented.

It will be understood that this opinion in no way undertakes to pass upon the legality of transactions such as have been discussed here if such transactions were to take place under normal and usual business and economic conditions. The theory of law herein expressed may to some extent be defined as a doctrine of economic self-defense and is analogous to the usual doctrine of self-defense in that it may be appealed to only in conditions of danger and may not exceed the necessities of the situation.

Accordingly, so long as the proposed reduction operates only during the existing emergency and is confined in the utmost good faith to the purpose of meeting and averting the threatened and to some extent existing disaster and injury to the copper industry during the present world-wide depression, we are of the opinion that the Sherman Act will not be violated.

Very truly yours,

William J. Donovan.

Exhibit No. 2142

[Press Release, Copper Institute, Dec. 21, 1931]

On November 15, 1930, the Copper Institute, acting informally, announced a voluntary curtailment of production, which at the time was thought would be sufficient under existing conditions of consumption to prevent further demoralization in the copper industry. Notwithstanding that such reduction was generally effected, consumption continued to decline, with the result that the situation became increasingly more difficult, until the present time, when stocks have accumulated to the highest level in history, the price has fallen to 6½¢ per pound, much below the lowest level of all times, and generally below the actual money cost of producing copper, exclusive of any depreciation or depletion of capital assets. A large new production in Rhodesia is also about to come upon the market, operations having already been started. It was obvious that unless there was a more drastic curtailment of production the price of copper would continue to fall to levels under which no operating mine could meet expenses. Another meeting was therefore called, attended by representatives of practically all copper mining companies of the world, including the new Rhodesian producers, many of whom are not members of either the Copper Institute or Copper Exporters, Inc.

These representatives were of the unanimous opinion that further reduction in production was inevitable, either voluntarily or through the compulsion of a price inadequate to meet the cost of production, forcing a shutdown by producers one by one, beginning with the higher cost units, most of which are situated in the United States.

After discussion as to a proper basis for proposed reduction, a consensus of opinion was reached that operations ought to be reduced to a basis of approximately 26½% of estimated capacity, beginning January 1, 1932. No formal agreement has been made; there is no authority to enforce the reduced rate of production, nor is there any restraint that prevents any individual action that may be taken by any company. In these discussions, over 90% of the world's production was represented, of which approximately 70% is from mines situated outside the territorial limits of the United States.

In order that the reduced operations contemplated in the discussions may not result in unduly advancing the price of copper, it was the view of all of the producers that curtailment should cease when the total stocks of copper above ground shall not equal in the aggregate the total of the deliveries in the preceding four months. The processes of production, from mine through smelting, refining, transportation to market, normally require the tie-up of an amount of copper in tonnage roughly equal to three times the current monthly rates of delivery.

Twelve cents a pound was approximately the lowest level reached by copper during the present century prior to the present depression. It is a price below which but few mines—only one or two of which are situated in the United States—can be operated at a profit allowing a return of the capital invested with six per cent. interest thereon. In order to prevent the curtailment from being utilized in unduly advancing the price of copper, if the price of copper shall

exceed, for a period of fifteen days, the price of twelve cents a pound, Valley delivery, the curtailment shall cease, no matter what existing stocks may be.

Should the total stocks of copper above ground not have been reduced by December 31, 1932, so as to equal in the aggregate the total of the deliveries in the preceding four months, any company may without criticism nevertheless resume operations as it sees fit on thirty days' notice.

The new Rhodesian production, and several Canadian and South American mines not heretofore members, are expected to join Copper Exporters, Inc., on condition of the modification of certain of its rules, which have been agreed upon in principle. The drafting of these rules will require an appreciable length of time, and when formally adopted will be promptly filed with the Federal Trade Commission.

Exhibit No. 2143

United States of America

department of justice

February 13, 1940.

Pursuant to Title 28, Section 661, U. S. Code (Sec. 882, Revised Statutes), I hereby certify that the annexed paper is a true copy of the original record in this Department, of an eight (8) page report by Special Agent W. C. Gorsuch as contained in Section 6 of File No. 60–27–3.

In Witness Whereof, I have hereunto set my hand, and caused the seal of the Department of Justice to be affixed on the day and year first above written.

[SEAL]

F. D. Quinn,
Administrative Assistant to the Attorney General.

This case originated at New York City — N.Y. File #60–227—GR

Report made at: New York City — Report made by: W. C. Gorsuch
Date when made: 11–17–31 — Title: Copper Institute
Period for which made: 11–11/13–31 — Character of case: Anti-trust

Synopsis of facts: Interviews with F. H. Brownell, Chairman, American Smelting & Refining Co., C. F. Kelley, President, Anaconda Copper Co. and Messrs. Pisart and Gutt, representatives of Belgian Government, indicate no general conferences or meetings have been held by the Copper Industry and that no plan formulated for the future. Intermittent two-party conferences have been had by both Mr. Brownell and Mr. Kelley with leading American and foreign producers but no basis reached upon which conference could be called. Pending Bureau instructions.

Reference: Bureau letter, November 9, 1931.

Details: The Bureau letter of reference states that a memorandum was received from Mr. O'Brian, Assistant to The Attorney General, under date of November 3rd, requesting that the officials of the Copper Institute and at least six other important members of the industry be interviewed in an endeavor to bring this investigation up to date by ascertaining what has been done since previous inquiries into this matter and as precisely as may be what is expected to be done in the future. Mr. O'Brian's memorandum states that recent newspaper reports have indicated that the plans now entertained call not only for curtailment of production but for some form of cooperative marketing and that these and any other pertinent features should be investigated.

R. Eckert, Secretary, Copper Institute, was interviewed at his office with Copper Exporters, Inc., 25 Broadway, New York City. Mr. Eckert stated that he has attended no conferences and knows of no meetings which have been held by the Copper Industry, although he has read quite a number of newspaper accounts relating to conferences held within the industry. He stated that if such conferences have been held that he knows nothing concerning them and that he has not been invited to attend. He stated that about three weeks ago, upon the arrival of the Belgian and British mining representatives, a luncheon was given to the visiting representatives, which luncheon he attended and which was purely a social affair. He stated that no business was discussed at the luncheon and no reference made to that time to any conferences or meetings to be held in the future for the discussing of curtailment of production or other problems facing the Copper Industry. Mr. Eckert advised agent that the does not believe any such meetings or conferences have been held as he would have learned of them and would have been invited to attend. He believes the conferences referred

to by the press were just two or three-party conferences between the heads of the various large copper producing companies which were informal in nature and which were in no sense conferences held by the industry. Mr. Eckert stated that he believed Mr. C. F. Kelley, President of the Anaconda Copper Mining Company, and F. H. Brownell, Chairman of the Board of the American Smelting and Refining Company, if interviewed, could furnish all the details regarding the situation existing within the industry with reference to any conferences or meetings held by the Copper Producers.

F. H. Brownell, Chairman of the Board, American Smelting and Refining Company, 120 Broadway, New York City, was interviewed and stated that the entire Copper Industry is in a chaotic condition generally, resulting from overproduction of copper at the mines and that existing conditions are no better than last year prior to the meetings which were held in the month of November. Mr. Brownell further stated that the conferences held by the industry last year were not productive of the results hoped for; that although the domestic producers did curtail production so that the already abnormal stocks of copper above ground would not be materially increased, the foreign producers continued to produce greatly in excess of demand so that the World copper situation is not improved and presents an acute problem for the industry.

Mr. Brownell informed agent that the actual amount of copper produced within the territorial limits of the United States is very small in comparison with the total copper produced in the World, that Canada, Mexico, South America and Africa are by far the World's most important copper producing countries. Mr. Brownell stated that most of the domestic producers are high-cost producers and have shut down production. He stated that his own company is not now operating in strictly copper producing mines; that the only mines of his company now in operation are mines which produce lead or other metals along with the copper ore.

Mr. Brownell stated that the Katanga Mines, located in the Belgian Congo and owned in part by the Belgian Government, are the World's largest copper mines and are at present producing tremendous quantities of copper, which is sold in the European Markets. He stated that Belgium has undertaken a colonization program for the Congo and the development of the mineral and agricultural resources for the purpose of supplying work for the natives forms an important part of the colonization program.

Mr. Brownell further stated that the Roan Antelope Mines, controlled by British interests, located in Rhodesia, just south of the Congo, are now beginning production and will produce on approximately the same basis as the Katanga Mines. He stated that the Roan Antelope Mines have come into production since the conferences of last November and that a production approximating that of Katanga will have an important bearing upon the Copper situation generally.

Mr. Brownell stated that the Copper Industry has had no conferences or meetings other than one luncheon which was a social affair as an act of courtesy to the visiting representatives of foreign mining interests and that no business was discussed at this luncheon.

Mr. Brownell stated that the leaders of the various producing companies have conferred intermittently during the past three weeks to see whether there is any basis upon which they could get together for a discussion of any or all of the problems facing the industry. He stated that if it were found that there was a common basis upon which a meeting could be called it was intended that a meeting or conference would be held and that any plan or understanding evolved at such conference would be taken by Colonel William J. Donovan to Washington and submitted to the Department for an expression of its opinion. Mr. Brownell stated that the producers never reached a point where they could call a conference of the industry for the discussion of any of its problems for the reason that the views of the various groups differ so widely; that no basis has as yet been found upon which a discussion could be had or an understanding reached.

Mr. Brownell further stated that the cooperative marketing plan referred to in the press reports referred solely to foreign sales and had nothing whatever to do with domestic sales of copper. He stated that practically all of the domestic producers sell direct to consumers or users of copper and do not sell on the market to brokers or jobbers for speculation. He stated that most of the domestic producers are members of the Copper Export Association, which concern sells domestic produced copper in foreign countries direct to users and manufacturers. He stated that his own company sells to users direct and that selling on a market creates speculation, which, in his opinion, is not good for the industry. He stated that the British group controlling the Roan Antelope Mines want to sell on the

London Metal Market and that most of the sales of copper in foreign countries in the past few months have been speculative.

Mr. Brownell further advised that he is Chairman of the Executive Committee of the General Cable Corporation and also Chairman of the Executive Committee of the Republic Brass Corporation. The General Cable Corporation manufactures copper, wire and cable, and the Republic Brass Corporation manufactures brass, fittings of all sorts, including automobile accessories. He advised that the main outlets for copper are manufacturers of wire and cable for public utilities and electric wiring in buildings and manufacturers of brass fittings and automobile accessories. At the present time the sales of the General Cable Corporation and the Republic Brass Corporation, according to Mr. Brownell, are only thirty per cent of normal, which Mr. Brownell considers a fair indication of the rate of copper consumption in the United States. Mr. Brownell believes that as a matter of good business production within the industry should be equalized with consumption. Mr. Brownell further stated that the industry so far as he knows has no particular plans in mind for the future; that the leaders of the industry were hopeful that they could get together and iron out some of the problems facing them for the betterment of the entire industry but that it now looks as though nothing will be accomplished and that no meetings of the industry will be called. Mr. Brownell attributes the failure of the producers to find some common basis for discussion upon the divergent interests of the various groups, stating that the Belgian group are promoting their colonization plan; that the British group desire to establish the London Metal Market and that the Canadian group, being the world's largest producer of nickel, are interested mainly in nickel production and that copper is a by-product from the nickel ore.

Cornelius F. Kelley, President, Anaconda Copper Mining Co., 25 Broadway, New York City, was interviewed at the Board Room of the Anaconda Copper Company. Present also at this interview were Colonel William J. Donovan, former Assistant Attorney General, and Ferdinand Pisart and Emil Gutt, representatives of the Belgian Government. Agent had previously communicated with Mr. Kelley's secretary by phone and arranged an appointment with Mr. Kelley. Upon calling at Mr. Kelley's office, Mr. Kelley informed agent that he desired his counsel, Colonel Donovan, to be present during the interview and that Colonel Donovan would arrive at his office within the next few minutes. Mr. Kelley further advised agent that he had been in communication with Mr. Ferdinand Pisart and Mr. Emil Gutt, representatives of the Belgian Government, and they had advised him that agent had previously endeavored to arrange an appointment with them at the office of African Metals Corporation, 25 Broadway, selling agents for the Katanga Mines. African Metals Corporation is located in the same building as the Anaconda Copper Mining Company. Mr. Kelley further advised that Messrs. Pisart and Gutt had expressed to him their willingness to arrange an appointment with agent but that in view of the fact that neither of them speak English fluently they would rather meet agent at Mr. Kelley's office and sit in on the interview between Mr. Kelley and agent. Mr. Kelley thereupon called Messrs. Pisart and Gutt by phone and invited them to be present at the interview.

Messrs. Pisart and Gutt stated that they are official representatives of the Belgian Government, representing the Belgian Government not only in the mining industry but in other industries as well. They stated that they are members of the Comite Especial due Haut Katanga for legislation in the Katanga Province of the Belgian Congo. They stated that the committee of which they are members makes recommendations to the Belgian Government for improvement of conditions in the Congo. They stated that they have no authority to make commitments of any nature for the Belgian Government but that they can only make recommendations to the Government. They further stated that they make two trips to the United States each year in the interest of the Belgian Government to study conditions not only in the mining industry but in other industrial pursuits as well. They stated that the Belgian Government is undertaking a colonization program in the Congo, which includes mining, the building of roads and railroads and agricultural pursuits to keep the natives occupied and to make them self-supporting. They further stated that only recently Communism spread among the natives, causing riots and some bloodshed, which the Belgian Government wishes to avoid by keeping the natives employed. They stated that the Belgian Government owns more than fifty per cent of the stock of the Katanga Mines and is not so much interested in operating the mines at a profit as it is to keep the natives working. The Belgian Government, therefore, according to their statement, is not particularly interested in the matter of overproduction or the price at which copper is selling, as the income to the Govern-

ment from the copper produced in the Katanga Province is practically nil, as compared to the Government Budget. Messrs. Pisart and Gutt advised that copper produced by the Katanga Mines is sold direct to consumers and that it is all sold in foreign markets and none sold in the United States. They again stated that they did not represent the Katanga Mines in any official capacity, being members only of the committee governing the Katanga Province and that they have no authority to commit the Belgian Government to any plan calling for the curtailment of production of copper. They stated that Emile Francqui, the Belgian Minister of State, is the managing director of the Katanga Mines for the Government. Mr. Francqui arrived in the United States on October 20, 1931, in the interests of the Belgian Government and at that time visited President Hoover. They further advised that Mr. Francqui while in the United States at that time made a public announcement for the Belgian Government that it would not reduce or curtail production at the Katanga Mines more than twenty-five per cent, as a greater reduction would disrupt the colonziation program by producing unemployment among the natives in the Congo not only in the mining industry but in other related industries.

Messrs. Pisart and Gutt further stated that they have attended no general meetings or conferences of the Copper Industry other than a luncheon tendered them and the representatives of the Roan Antelope Mines by the Copper Export Association, which was purely a social affair. They stated that they had conferred with all of the leading American Copper Producers since they have been in the United States on this trip, discussing the copper situation generally but that no plans have been entertained regarding future production or the marketing of copper. They are returning to Belgium on Tuesday, November 17th.

C. F. Kelley, President of the Anaconda Copper Mining Company, stated that the copper industry at present was in a chaotic condition and was trying to straighten itself out but that so far nothing along this line had been accomplished. He stated that there are a number of factors which are disturbing the industry and he called agent's attention to the fact that upon the occasion of the Department's previous inquiry copper was selling at twelve cents a pound, whereas now it is seven cents. Mr. Kelley stated that in October 1930 the available statistics showed copper stocks on hand amounting to 1,230,000,000 pounds. At that time the monthly production was at the rate of 300,000,000 pounds and monthly deliveries were running from 20,000,000 to 30,000,000 pounds less than production. He stated that meetings were held within the industry and a curtailment program decided upon, which program resulted in production being brought down to about equal the consumption until April 1931, at which time the production again exceeded consumption and in June of 1931 production reached about the same level as before the November 1930 conferences. Mr. Kelley further stated that among the disturbing factors confronting the industry at this time is over-production resulting from the immense production of copper by the Katanga Mines, which are the World's largest copper producers. He stated that the Katanga Mines are owned chiefly by the Belgian Government, which is operating the mines in furtherance of a colonization program and that the Belgian Government is not interested particularly in the prices at which its copper is sold so long as it is developing the colony and keeping the natives at work The copper produced by the Katanga Mines is sold chiefly in the European markets and none is sold in the United States. Another disturbing factor is the recent opening of the Roan Antelope Mines, controlled by British interests, in Rhodesia. The British interests control four mines in Rhodesia, two of which are now producing and the other two will be producing next year. The Roan Antelope Mines of Rhodesia, being located in the same area as the Katanga Mines, are next in size in the amount of production to Katanga. Aside from the copper produced by the Roan Antelope Mines, the British Markets are supplied with copper from the Canadian Mines, the International Nickel Company of Canada being a low cost producer and producing a large amount of copper in conjunction with the mining of nickel. Canada does not consume a great deal of copper and the greater part of the production of the International Nickel Company is sold on the London Market.

Mr. Kelley further stated that the British want to maintain World leadership in the various markets at London. He stated that London lost the gold market by England's dropping the gold standard but that the British are very desirous of establishing the London Metal Market in other metals. He stated that the Roan Antelope Mines will sell on the London Metal Market, which method of selling will result in speculation, very similar to the speculation now existing in the stock markets of the United States. He stated that the American producers and the Katanga Mines make their foreign sales through the Copper Export

Association direct to consumers. He stated as a result of the establishment of the London Metal Market and the speculative sales by it that the Copper Export Association suspended business for several days and no foreign sales were made and it was problematical as to whether the association would be continued, depending upon whether the producers continued to sell through the association or on the London Metal Market. However, the Copper Export Association has now resumed business, indicating that the domestic refiners will continue to make foreign sales direct to the consumer rather than on the London Metal Market. Mr. Kelley stated that another factor facing the industry is the proposed tariff on copper which is now being considered by both England and the United States. Should England place a tariff on copper the American producers would be practically shut off from sales of copper in the British Empire, as the Roan Antelope and the Canadian Mines being located in British colonies would be in a position to sell the copper duty free.

Another situation which is disturbing the copper industry at the present time is the establishment of a refinery in France, France having been without a refinery until the present time and having afforded a market for American producers. Mr. Kelley stated that he understands the French Government is very desirous of having a refinery for the purpose of having a source for military supplies in case of an emergency.

Mr. Kelley stated that with these problems facing the industry the leading American producers wanted to discuss the situation generally with the foreign producers when they came to this country. He stated that Messrs. Pisart and Gutt represent the Belgian Government, usually making two trips to the United States each year and that representatives of the Roan Antelope Mines were also visiting the United States; that the American producers wanted to extend a friendly gesture to the visiting representatives and as an act of courtesy gave them a luncheon upon their arrival in the country. He stated that the luncheon was given under the auspices of the Copper Export Association, which is the only association of any import in the industry, to which most of the producers belong. He further stated that the luncheon was purely a social affair, so that the domestic producers could meet and become acquainted with the foreign producers; that no business was discussed at the luncheon. Mr. Kelley further stated that no conferences, such as were held last year, have been held and it is improbable that any meetings of a general nature in which the industry is represented will be held. Mr. Kelley stated that since the arrival of Messrs. Pisart and Gutt of Belgium, and A. Chester Beatty, Chairman of the Roan Antelope Mines, he has met and talked with all the leading copper producers in this country intermittently. He further stated that Messrs. Pisart and Gutt have also met and talked with all of the leading American producers, which statement was confirmed by these two gentlemen. Mr. Kelley stated that the purpose of his talks with the producers was to find out whether there was some basis for calling a meeting, at which the problems outlined above could be discussed. He stated that the views of the various groups of producers apparently are so divergent that there is no basis upon which a meeting could be called. He stated that as the situation now exists that he does not believe the copper producers could agree on any plan regardless of the anti-trust laws; that if the anti-trust laws did not place any restriction whatsoever upon agreements within the industry that it appears the present interests of the various groups are so divergent that no agreement could be reached. Mr. Kelley stated that it now seems unlikely that any conferences will be held by the industry; that the industry has no program or plan for the future; that the larger American producers merely desire to find out if there is some point upon which they could get together to formulate a plan or program or even discuss the formulation of a plan or program for the benefit of the entire industry. Mr. Kelley further stated that no discussion of a cooperative marketing plan or program has been had by him or in his presence and that he knows nothing whatever concerning such a plan; that it is probable that the news item in mentioning the cooperative marketing plan referred to the foreign sales on the London Metal Market. Mr. Kelley further advised agent that he has been greatly irked by the columns of publicity recently appearing in the newspapers making reference to the American visit of the foreign producers and referring to "International Conferences" and "World Conferences." Mr. Kelley states that these items are due to the more or less vivid imagination of newspaper reporters and that he has not given out any press reports whatsoever. He stated that he is only surprised that he has not been called upon sooner by an agent of the Bureau as a result of the great amount of newspaper publicity. Mr. Kelley stated that is was his intention that if the producers reached a point where a conference of the industry could be held to notify the Department and to invite the Department to send a representative to sit in

on all conferences held by the industry. He further stated that if any program or plan could be evolved as a result of the proposed conferences, that the same was to be taken by Colonel Donovan to Washington and submitted to the Department before any action was taken. Mr. Kelley stated that so far the efforts of the producers have failed to reach a point where it was even necessary to consult Colonel Donovan and that it is improbable that any meetings or conferences will be held.

Colonel William J. Donovan, counsel for Mr. Kelley, stated that he has not been called upon by Mr. Kelley or any of the other copper producers as a result of discussions had by them, but that Mr. Kelley had previously advised him that if any meetings of the industry were held that he (Mr. Kelley) wanted to invite the Department to send a representative to the meetings and that any plan formulated was to be taken to Washington and submitted to the Department by Colonel Donovan for an expression of opinion.

Colonel Donovan further stated to agent that he is more or less familiar with the situation existing in the copper industry and that he acted as counsel for the producers in the meetings held in November 1930. Colonel Donovan further stated that in the event agent desired to interview other producers that he would be very glad to arrange such interview through his office.

On November 11, 1931, Mr. Hughes, of the Bureau, called Assistant Special Agent in Charge Tamm by phone and advised that inquiry in this matter should not be confined alone to six members of the Institute but others in the industry outside the Institute should be interviewed as well. However, in view of the fact that the information obtained as a result of the above interviews discloses that no conferences have been held by the copper industry and no plan entertained for future action by the producers and further in view of Mr. Kelley's statement that he has intermittently talked with practically all of the American producers, further nvestigation will be suspended and case held pending further instructions from the Bureau.

Pending.

Exhibit No. 2144

United States of America

department of justice

February 13, 1940.

Pursuant to Title 28, Section 661, U. S. Code (Sec. 882, Revised Statutes), I hereby certify that the annexed paper is a true copy of the original record in this Department, of a seven (7) page report by Special Agent W. C. Gorsuch as contained in Section 6 of File No. 60-27-3.

In witness whereof, I have hereunto set my hand, and caused the seal of the Department of Justice to be affixed, on the day and year first above written.

[seal] T. D. Quinn,
Administrative Assistant to the Attorney General.

This case originated at: New York City.	N. Y. File No. 60-227 Dem.
Report made at: New York City.	Report made by: W. C. Gorsuch.
Date when made: 12/18/31.	Title: Copper Institute.
Period for which made: 12/8-11/31.	Character of case: Anti-trust matter.

Synopsis of facts: E. J. MacDonald, Consolidated Copper Mines Corporation and R. E. Talley, President, United Verde Copper Company, have no knowledge of any negotiations in the copper industry relative to curtailment of production. C. F. Kelley, President, Anaconda Copper Mining Company, reiterated previous statement that no conferences or meetings have been held by the copper industry and no plan formulated for the future. Recent announcement by Katanga Mines resulted from conference of Belgium and British producers in London and emanated through press dispatches from Brussels, Belgium. Dispatches indicate no change in actual production but rather a revision of potential production figures.

P

Reference: Bureau letter dated December 3, 1931, together with memorandum of Mr. John Lord O'Brian, The Assistant to the Attorney General, dated December 1, 1931, attached thereto.

Details: At New York City.

E. J. MacDonald, Secretary and Treasurer, Consolidated Copper Mines Corporation, 120 Broadway, was interviewed and stated that the Consolidated

Copper Mines Corporation has not entered into any recent program calling for the curtailment of production in the copper industry; that he is not aware of any meetings held by the producers during the present year and, so far as he knows, there has been none. Mr. MacDonald advised that Howard Smith, president of the company, is very active in the group of producers who are endeavoring to get a copper tariff. Mr. Smith is at present in Washington lobbying for the tariff. Mr. MacDonald stated that he is quite positive that Mr. Smith has not attended any conferences this year in the interest of curtailment of production, which statement is based upon the fact that Mr. Smith has been out of the city during the entire period that the Belgium and British mining representatives were in the United States. Mr. MacDonald further stated that the mining properties of the Consolidated Copper Mines Corporation are located wholly within the State of Nevada, and that the Consolidated Copper Mines Corporation is one of the smaller producers. The potential production of the company could not appreciably effect the surplus stocks of copper now on hand in the industry.

Mr. MacDonald stated that the copper industry is at present demoralized due to the tremendous stocks on hand and over-production by producers throughout the world. Consolidated Copper Mines Corporation joined with the other producers in November, 1930, when conferences were held looking toward the curtailment of production, but Mr. MacDonald stated that in Mr. Smith's opinion a curtailment program will not be productive of the desired results and that a copper tariff is the only solution to the problems of the domestic producers. He stated that naturally the Anaconda Copper Mining Company, with large interests in South America, is opposed to a copper tariff but that a uumber of the other producers, including Miami Copper and Phelps Dodge Corporation, are favorable to a copper tariff and are at present lobbying in Washington in the hope of having the present Congress establish a copper tariff. Mr. MacDonald stated that therefore the Consolidated Copper Mines Corporation is not particularly interested in any curtailment program that might be advanced but that the company would join with the other producers in any program which will bring the copper industry out of its present chaotic condition. He stated that the Consolidated Copper Mines Corporation is now working on a curtailed basis and has been since the general business depression, but that such a curtailment as has been made by the company was brought about through purely economic conditions and not through any understanding or program adopted at conferences held by the producers. He stated that at the present time the monthly production is at approximately one-sixth capacity.

R. E. Talley, President, United Verde Copper Company, 111 Broadway, was quite active in the conferences held by the copper producers for the purpose of curtailing production in November of 1930, and when interviewed by agent at his office, stated that since the meetings of a year ago he has not participated in further conferences looking toward curtailment and that he has not been active in the industry. He stated that the United Verde Copper Company has not sold any copper in over a year and that its mines have been closed since last May. He stated that his company would rather remain shut down than to further deplete its mines and pile copper above ground when there is no ready market for it.

Mr. Talley stated that so far as he is aware there have been no conferences held by the copper industry and that no plans have been formulated for the future. He stated that when the Belgium and British mining representatives were in this country they were given a luncheon, at which most of the American producers were present, but that this luncheon was purely a social affair and that no business was discussed. Before the luncheon was given the producers made a rule that there would be no speeches made during the luncheon. Mr. Talley stated that any conferences which have been held were merely two and three-party conferences whenever any of the copper producers happened to get together. He stated that he himself did not talk to either Mr. Pisart or Mr. Gutt, representing the Belgium Government during their recent visit, but that it is quite probable they talked with Mr. Kelley of the Anaconda Copper Mining Company, since they are both very good friends of Mr. Kelley's.

Mr. Talley further advised agent that at the present time the copper industry is in a very distressed state due to over-production which has resulted in enormous unsold stocks on hand, which stocks are being daily increased by the tremendous productive capacities of the Belgium Congo and Rhodesian Mines. He stated that so far as he is aware the industry has no plan or program in view to remedy existing evils. He stated that the industry is somewhat divided at the present time in that some of the producers believe that curtailment of production will prove beneficial while others believe that a copper tariff is the only way out for the domestic producers. Mr. Talley suggested that Mr. Kelley would be the

proper one to approach for information regarding any conferences held by the various producers interested in curtailment of production.

Mr. Talley further stated that he has never received an announcement that the Katanga Mines have undertaken a further curtailment but that he has read recent press dispatches indicating that the Katanga Mines are curtailing more in line with what other producers are doing. He stated, however, that these press dispatches emanated from Brussels, and the dispatches which he has seen would indicate that the Katanga Mines have made no further curtailment but have scaled down the figures showing their potential production. Mr. Talley advised that he has had no correspondence with any producer relative to curtailment of production.

C. F. Kelley, President, Anaconda Copper Mining Company, 25 Broadway, was interviewed, and again assured agent that there have been no general conferences or meetings held by the copper producers during recent months and that the producers have formulated no plan for the future. Mr. Kelley stated that he has, of course, talked intermittently with all of the copper producers whose offices are in New York City and that he has also talked with Mr. Pisart and Mr. Gutt, representatives of the Belgium Government, and with the representatives of the Rhodesian Mines. He stated that whenever copper men get together the present chaotic condition of the industry is naturally the chief topic of conversation and that they discuss their problems with each other with the view of formulating some plan whereby the industry may be benefited. Mr. Kelley informed agent that at the present time the producers are further apart than they were at the time of agent's previous interview with Mr. Kelley on November 13, 1931.

Mr. Kelley further assured agent that if the producers ever reach a point where they feel as though they can call a conference of the industry for the purpose of adopting a program, the Department will be notified and any plan formulated will be submitted to the Department before it is adopted.

Mr. Kelley stated that in October of this year Emile Francqui, the Belgium Minister of State, came to the United States for the purpose of visiting President Hoover in the interests of the Belgium Government, and that before his ship docked Mr. Francqui gave out a statement to the press relative to the Katanga Mines. Mr. Francqui, as an official of the Belgium Government, stated through the press that the Katanga Mines had a monthly production of 506,000,000 pounds and that production would be reduced to 40 per cent of this figure. The Belgium Government owns an interest exceeding 50 per cent in the Katanga Mines. Mr. Kelley stated that the figure announced by Mr. Francqui was the only figure on Katanga's production available to the American producers, and that he himself thought this figure to be quite high.

Mr. Kelley further stated that Messrs. Pisart and Gutt are members of the Comite Especial du Haut Katanga, which is the governing board for the Katanga Province, and are not strictly mining men. While they are official representatives and travel under diplomatic passports, they have no authority to make any commitments before the Belgium Government relative to the operation of the Katanga Mines. Therefore, they did not enter into any conferences while here with the American producers for the purpose of evolving a curtailment program. Mr. Kelley stated that the Anaconda Copper Mining Company and the Katanga Mines are interested jointly in some foreign selling agencies and that whenever Messrs. Pisart and Gutt are in this country they visit his office and that naturally conditions within the copper mining industry are discussed. He stated that while they were in this country no general conferences were held and no negotiations for further curtailment undertaken.

Mr. Kelley stated that his own idea for the solution of the over-production problem facing the industry was a program designed to equalize production with consumption; that first, it would be necessary to reduce production at all mines until the stocks on hand equaled three months' supply which, according to Mr. Kelley, is a normal stock. Mr. Kelley stated that the three months period is based upon the time it takes for the producer to sell copper after the ore is brought above ground; that it takes three months for the ore to go from the mine through the smelter and refinery; second, that such curtailment should continue only until the three months stock on hand was reached or until the price of refined copper reached twelve cents per pound. This figure, according to Mr. Kelley, is a fair price for copper and is one at which all producers can operate. The present market price of copper, namely six and one-half cents, is below the actual money cost of production. Also, it was Mr. Kelley's idea that the volume sales of copper by producers should be in proportion to the amount of stocks on hand; that it would be unfair for any producer to hold his stock intact until the price

hit a higher level and then dispose of his stock at the higher price while other producers were obliged to sell their surplus stocks at the prevailing low markets. Mr. Kelley stated, however, that his plan, as above outlined, was not acceptable to the other producers with whom he discussed it at various times and was just "so much water over the dam".

Mr. Kelley further stated that after the Belgium representatives returned to Belgium they held a conference with the British producers in London; that none of the American producers were present at this conference, and Mr. Kelley is unable to state the names of the British or Belgium representatives attending or the exact date when the conference was held. However, after the London meeting the Belgium Government announced a further reduction at the Katanga Mines. Mr. Kelley stated that he received a cablegram from Mr. Pisart announcing the decision of the Belgium Government; that the cablegram was not an official communication but was in the nature of a personal cable to him. Mr. Kelley had his secretary bring in to him his file of correspondence with Mr. Pisart and Mr. Gutt, and an examination was made of same for the purpose of locating the cable referred to. The entire file consisted of cables and correspondence relative to the joint selling agencies and did not refer in any manner to curtailment of production by either the Anaconda Copper Mining Company or the Katanga Mines. Mr. Kelley was unable to locate the cable in question, and stated that it is quite possible that he threw it in the waste basket as it was a personal matter and did not pertain to the company's business. He stated that the announcement made by the Belgium Government to the effect that a further curtailment would be made at the Katanga Mines was carried in press dispatches emanating from Brussels, Belgium and was flashed on the ticker from London, England prior to his having received the cable from Mr. Pisart. Mr. Kelley stated that as near as he can recall, the announcement made by the Belgium Government concerning future production for the Katanga Mines was to the effect that the present production of the Katanga Mines is 432,000,000 pounds per month as against 506,000,000 pounds, previously stated by Mr. Francqui in October, and that 66,000,000 pounds per month will be stored in Africa as stock and not thrown upon the market. Mr. Kelley stated that in effect the only change in the attitude of the Belgium Government toward curtailing production is the storing of the 66,000,000 pounds per month; that actually no further curtailment is being made in production. The production figures have merely been scaled down, and it is Mr. Kelley's opinion that the 432,000,000 figure recently announced by the Belgium Government is nearer the correct monthly production of the Katanga Mines than is the 506,000,000 figure announced by Mr. Francqui.

In connection with Mr. Kelley's statement that the copper producers are at present farther apart on a program now than they were at the time of agent's previous visit, Mr. Kelley stated that the Phelps Dodge Corporation has resigned from the Copper Export Association, and that the Kennecott Copper Company has withdrawn from the American Bureau of Metal Statistics and no longer furnishes that Bureau with figures regarding its production.

The producers at present have no way of knowing what the Kennecott Copper Company is doing as regards production or stocks on hand. The Kennecott Copper Company is the second largest producer in the United States. The Phelps Dodge Corporation is the third largest producer, and recently resigned from the Copper Export Association due to a controversy over the sale of non-electrolytic copper. Mr. Kelley explained that there are two processes for refining copper, one being the electrolytic process. Copper ores which contain precious metals such as gold and silver are subjected to the electrolytic process which takes out the precious metals and produces a finer grade of practically pure copper. Ores which do not contain precious metals are refined by a non-electrolytic process, and the copper produced therefrom contains certain impurities and is not of as a high a grade as copper produced by the electrolytic process. Non-electrolytic copper is sold under the trade name of "B. S." or "Best Seller" copper, and is sold chiefly in the German, French and other European markets. Practically all copper sold in domestic markets is electrolytic copper.

Mr. Kelley stated that sales made by the Copper Export Association have heretofore been of electrolytic copper only but that at the present time the Phelps Dodge Corporation is producing quantities of "B. S." copper which it desires to sell in foreign markets, and due to the fact that the other producers belonging to the Association do not want sales of "B. S." copper made through the Association, a controversy has arisen between the Phelps Dodge Corporation and the Export Association, resulting in the withdrawal of the Phelps Dodge Corporation from the Copper Export Association.

Mr. Kelley further informed agent that on November 25, 1931 he issued orders within his own company reducing production from 468,000,000 pounds per month to 300,000,000 pounds per month, stating that this information is strictly confidential and that he does not desire same to become known in the industry. He stated that the curtailment by his company was absolutely necessary as an economic measure and was not put into effect as a result of any agreement or understanding whatsoever with any other company; that no other company in the industry knows that such a curtailment has been made by the Anaconda Copper Mining Company.

The memorandum of Mr. John Lord O'Brian, The Assistant to the Attorney General, dated December 1, 1931, attached to the Bureau letter of reference, stated that the Department does not desire to have a statement of fact framed by counsel, and that it is requested that the parties heretofore interviewed be interviewed again, individually if possible. With reference to agent's report dated November 17, 1931, covering interview had with Mr. Kelley on November 13th, at which time Messrs. Pisart and Gutt and William J. Donovan, Counsel, were present, it may be here stated that agent first interviewed Mr. Kelley and then interviewed Messrs. Pisart and Gutt, and the counsel did not take part in the interviews until they were completed. Messrs. Pisart and Gutt returned to Belgium on November 17, 1931.

Undeveloped leads: *The New York Office* will interview the proper officials of the Phelps Dodge Corporation, and contact such other producers as may be in a position to furnish information regarding any negotiations for curtailment of production which may have been going on within the industry.

PENDING.

EXHIBIT NO. 2145

[From the New York Times, Dec. 9, 1932]

COPPER WAR LIKELY AS PARLEY CRACKS—ROAN ANTELOPE MINES HOLD TO QUOTA DEMANDS—AGENTS OF KATANGA READY TO SAIL—LOWER PRICES FORESEEN—PERIOD OF UNLIMITED PRODUCTION WOULD FREEZE OUT HIGH-COST WORKINGS, IT IS SAID

The international copper conference, which began formal discussions on Nov. 29, seemed yesterday to have broken up without reaching any agreement as to limiting the world's production of the metal for 1933. No general meeting has been held in more than a week and the consensus last night was that no more sessions would take place. Ferdinand Pisart and Camille Gutt, officials of the Union Miniere du Haut Katanga, are scheduled to sail for Europe late today on the Majestic, which will leave that company without executive representation here.

Further informal discussions were held yesterday with the representatives of Roan Antelope Copper Mines, Ltd., on that company's demand for an 80 per cent increase in its allowable output for 1933. It was understood later that they refused to recede from their position. It was said that unless they made a last-minute change in their demands so that a general meeting could be held before Messrs. Pisart and Gutt started for Europe the conference would be permitted to break up without accomplishing anything.

Other producers were satisfied to continue with the 20 per cent quotas established last Spring for 1933. The producers are now said to oppose reopening the question of capacities.

Failure of the conference to agree on curtailment will mean "the survival of the fittest," a copper executive said yesterday. He believes that all cheap-cost producers will increase production, with the result that prices will decline to a much lower level, especially in the foreign markets.

Some producers have felt recently that the copper industry should inaugurate a period of unlimited production and lower prices in order to freeze out the high-cost producing companies. A protracted period of low prices will in time bring about a more stabilized situation, it is contended.

Owing to the tariff of 4 cents a pound on foreign copper coming into this country, strictly American producers probably will be less affected than foreign producers under the new plans that are possible. Producers here, it is understood have agreed to hold output down to figures around consumption totals and to cooperate.

Heavy stocks of the metal and low rate of consumption have placed the copper industry in an unfavorable statistical position. With the low-cost African and

Canadian producers increasing outputs and all clamoring to sell the increased production, a further sharp decline in foreign prices is said to be inevitable.

Copper was available abroad yesterday at 5.15 cents a pound c. i. f. base European ports. The all time low record of 4.40 cents a pound in the foreign market was made in July.

The domestic price was unchanged at 5 cents for December delivery, the record low mark, while 5¼ cents was still being asked for delivery in the first quarter of 1933.

Exhibit No. 2146

[From the New York Times, July 11, 1932]

THREE BIG UNITS QUIT COPPER EXPORT BODY—INTERNATIONAL NICKEL, CHILE COMPANY AND CERRO DE PASCO ANNOUNCE DECISIONS.—TARIFF HERE IS BLAMED—LEVY OF 4 CENTS A POUND SAID TO CONFINE HOME MARKET TO DOMESTIC COMPANIES.—ORGANIZATION'S END LIKELY—COPPER EXPORTERS, INC., SELLING AGENCY ABROAD FOR PRODUCERS, MAY BE SUCCEEDED BY NEW CONCERN.

Three important members of Copper Exporters, Inc., the single selling agency abroad for copper producers, announced yesterday that, beginning today, they would sell their product outside of the organization. The imposition by the United States of a tariff on copper of 4 cents a pound, which went into effect on June 21, was given as the reason for their decision. These companies, all of which operate outside the United States, are the International Nickel Company, the Chile Copper Company, a subsidiary of the Anaconda Copper Mining Company, and the Cerro de Pasco Copper Corporation.

In view of the set-up of Copper Exporters, Inc., which to function properly must control virtually all copper sold in the world markets outside of the United States, the withdrawals are expected ultimately to result in the breaking up of the organization. After the tariff on copper went into effect here foreign producers were shut out of the American market, which was left in the hands of American producers.

The rules of Copper Exporters prescribe that all members shall participate in the foreign business on a quota basis. Now that the foreign producers are virtually barred from the market here, they are unwilling to share foreign sales with American producers, which under the existing conditions have exclusive possession of the largest of all markets.

The announcement by Copper Exporters follows:

"On account of changed conditions in the world's copper market, due to the imposition of the American tariff, certain foreign copper producers, including International Nickel Company, Chile Copper Company and Cerro de Pasco Copper Corporation, have announced that beginning June 30 they will sell their product outside of Copper Exports, Inc."

International Nickel is the largest copper producer in Canada, while Chile Copper is one of the leading copper-producing organizations in Chile. For years the latter company's mine was the heaviest single producer in the world, but its output has been exceeded in the last few years by that of the Union Minière du Haut Katanga in South Africa. Cerro de Pasco has a prolific mine in Peru.

Whether an organization similar to Copper Exporters will be organized by foreign producers appeared yesterday to be uncertain. However, the consensus in the trade is that some such step will be attempted if Great Britain does not levy a tariff on the metal.

Exhibit No. 2147

Enclosure No. 6 in List No. 154.

Official No.: C. 435. M. 220. 1933. II.
[Conf.M.E.22(1).]

[Communicated to the Council and the Members of the League.]

Hand written: HC 57.7
.A2

(Stamped:) American Consulate, Geneva, Switzerland, Jul. 31, 1933. Political Section.

LONDON, JULY 27TH, 1933
Enclosure No. in List No.

LEAGUE OF NATIONS

MONETARY AND ECONOMIC CONFERENCE (hand written:) LONDON, 1933

REPORTS APPROVED BY THE CONFERENCE ON JULY 27TH, 1933, AND RESOLUTIONS ADOPTED BY THE BUREAU AND THE EXECUTIVE COMMITTEE

CONTENTS

Series of League of Nations Publications
II. ECONOMIC AND FINANCIAL
1933. II. Spec. 4.

ANNEX II

REPORT OF THE ECONOMIC COMMISSION

President: H.E. M. H. COLIJN (Netherlands)

Vice-Presidents: M. C. V. KROGMANN (Germany); H.E. M. Thomas LE BRETON (Argentine Republic)

Rapporteur: The Right Honourable Walter RUNCIMAN (United Kingdom)

CONTENTS

In view of the impossibility of further examination of the subject during the present stage of the Conference, and in order to provide the basis for future discussion, it is proposed that any suggestions or proposals of coffee exporting countries for the co-ordination of production and marketing of coffee and possibly for the organisation of some international body, should be submitted to the Secretary-General of the Monetary and Economic Conference for distribution among, and examination by, the other exporting countries.

(*e*) COCOA: RESOLUTION ADOPTED BY THE SUB-COMMISSION

The Sub-Committee expresses the desire that the situation of the cocoa market should be duly studied, taking into account the present production and consumption and the existing stocks of the various qualities, which it is impossible to do before the early adjournment of the Conference.

The Sub-Committee, therefore, invites the chief cocoa producing countries to study this question and to submit to the Secretary-General of the Monetary and Economic Conference, as soon as possible, their views and proposals with a view to the summoning of a meeting of experts qualified to study the organisation of the production of the international trade in raw cocoa.

Further, it invites the States interested to take the necessary measures to study the means of combating diseases of the cocoa plant in collaboration with the International Institute of Agriculture in Rome.

(*f*) TIMBER: RESOLUTION ADOPTED BY THE SUB-COMMISSION

The Sub-Committee on Timber,

Recognising the importance of maintaining a balance between supply and demand on the timber market;

Desirous of encouraging international collaboration with a view to improving the conditions of the timber market;

Taking note of the declarations formulated on this subject by the delegations of the different countries represented at the Conference;

Being of opinion that the efforts made to bring about collaboration between the chief timber exporting countries by the formation of groups and by agreements between groups should be pursued and supplemented, by agreements with the importing countries which would take account of all the interests involved;

And noting that negotiations are now proceeding in regard to such agreements for the export of soft wood, sawn or planed.

Decides to postpone its discussions until the beginning of October 1933, so as to allow the different countries to study the possibility of framing and possibly concluding such agreements, and in the meantime to collect the whole of the statistical information required, through the International Timber Committee.

The Sub-Committee is further of opinion that each country, acting in concert with the League of Nations and the International Institute of Agriculture, should organise rational statistics of the production of, and international trade in, timber.

(*g*) COAL: RESOLUTION ADOPTED BY THE SUB-COMMISSION

In view of the importance of the coal problem for world economy, the Conference invites:

(1) The principal producers to endeavour to organise coal production on an international basis, on the understanding that the agreements to be reached shall be followed and supplemented, if necessary, by agreements with the importing countries;

(2) The compentent organisations of the League of Nations to follow the above efforts and to ensure that all interests involved shall be safeguarded, in particular those of the importing and consuming countries. For this purpose, the Sub-Committee entrusted by the Economic Committee of the League of Nations with the study of the coal problem might again be convened;

(3) The Council of the League of Nations to convene a conference of the principal producing and consuming countries to study what measures should be taken if the results referred to in paragraphs (1) or (2) above have not been achieved within a time-limit of six months.

(*h*) COPPER: RESOLUTION ADOPTED BY THE SUB-COMMISSION

The delegation of the United States of America calls attention to the desirabilty of considering plans for the co-ordination by international agreement of the production and marketing of copper, which was included among the products mentioned in the proposal made by the French delegation on Jaune 19th (document Conf. M.E./C.E.8). In order to provide the basis for the future discussion of plans for the co-ordination of production and marketing of copper, further preliminary studies should be made. Accordingly, it is proposed that the Governments of the copper producing countries submit to the Secretary-General of the Monetary and Economic Conference, before September 15th, 1933, their views and proposals concerning the organisation of the production of copper and of the international trade in this product, with a view to the summoning of a suitable meeting to examine whether it is possible and expedient to conclude an agreement.

(*i*) TIN: REPORT ADOPTED BY THE SUB-COMMISSION

1. The Sub-Committee has examined the existing international scheme for the control of tin, to which it is suggested that such countries as now produce the metal in appreciable quantities, and are not at present participants in the scheme, should adhere. Discussion did not elict any substantive criticisms of that scheme; no suggestions were made for its amendment; no alternative methods of control were proposed.

2. The Sub-Committee consider that the existing scheme of control is framed upon sound lines; that it is in accord with the principles which have been accepted by this Conference as those which should govern the framing of plans for the co-ordination of production and consumption; that it has worked smoothly in actual practice for a period of over two years; and that it has been largely successful in achieving its main objectives.

3. In the course of the discussion, the Chairman of the International Tin Committee which has been responsible for the working of the scheme (under the direction of the Governments signatory of it) emphasised that it had been consistently mindful of the interests of the consuming countries. It was no part of the Tin Committee's policy or the policy of the Governments they represent, to force up the price of tin unduly. The scheme does not attempt to regulate or control prices, except indirectly by adjusting production to demand, and by making a reasonable provision for the reduction of admittedly excessive stocks. The International Committee have, however, at hand two most powerful weapons which can be used to prevent prices from rising unduly. The first is the International Tin Pool, which works in close *liaison* with the International Tin Committee, and which held on July 1st a stock of 20,000 tons of tin (as compared with a total visible supply of tin of approximately 47,000 tons). Tin is released from this pool in accordance with a sliding scale of quantities and prices. This scale has been settled in accord with the signatory Governments, and cannot be changed except by agreement between the pool and these Governments. Releases of the quantities fixed by this scale, at the varying price levels, are obligatory.

The second weapon is the power which the International Committee possesses, in agreement with the signatory Governments, of raising the quotas of production, as may appear from time to time necessary. The Committee has, it is understood, hitherto based its recommendations as to the suitable production quota at any given period solely with reference to the balance between production and consumption, and to the extent to which stocks were being drawn upon. But the Sub-Committee understand that the International Committee would be prepared to recommend an increase of the quotas, even where this was not justified by the considerations stated above, if they were of opinion that this was necessary in order to prevent an undesirable price rise. The Sub-Committee appreciate the force of the contention that pool releases, until the pool is liquidated and thereafter the power to adjust the quotas, provide a machinery which is adequate to protect the interests of consumers.

They are satisfied, from statements made by the Chairman of the International Committee, that that Committee is fully aware of the undesirability of permitting the price to rise unduly, and that the signatory Governments are also in accord on this point. Moreover, it is the interest of the producing countries to increase their production quotas whenever the situation permits.

4. The existing control scheme, in which the Governments of Bolivia, Nigeria, the Netherlands East Indies, Siam and the Federated Malay States participate, will probably terminate towards the end of 1933, and will, in any event, end early in August 1934. Negotiations for the conclusion of a new three year agreement, generally similar to that in force, are now taking place.

5. One of the major factors in determining whether such an agreement can be effected will be the attitude of the countries which produce tin, but do not participate in the existing agreement. The Sub-Committee are impressed by the argument, advanced by the International Tin Committee, (*a*) that it is equitable that all producing countries should join in the scheme of control, inasmuch as all benefit from the operation of that scheme and (*b*) that the break-down of the control scheme would, in existing conditions, involve the very gravest difficulties, and might easily mean disaster for the industry, the potential producing capacity of which is at present roughly double the recent rate of consumption. All tin-producing countries are vitally interested in the continuance of the scheme of control until such time as consumption approximates closely to the potential production now in sight. Their adhesion to the scheme is desirable, not only in order to ensure the conclusion of the new agreement for three years, but also to prevent the imminent possibility that, owing to the probable effect of the recent

rise of price in stimulating production in areas not now under control, the new agreement, even if concluded, may have to be abandoned owing to production in the non-controlled areas exceeding twenty-five.

2. *Sugar.*—The Bureau of the Conference has been requested to keep in touch with the International Sugar Council and with the countries concerned and to summon, when it thinks expedient, a further meeting in order to bring about the conclusion of a general agreement.

3. *Wine.*—The International Wine Office is instructed to follow in co-operation with the Economic Committee of the League of Nations and the International Institute of Agriculture, the various points of the plan drawn up by the Sub-Committee.

4. *Coffee.*—Suggestions and proposals of the exporting countries with a view to the co-operation of production and marketing, and possibly for the organisation of some international body, to be submitted to the Secretary-General of the Conference.

5. *Cocoa.*—The chief cocoa-producing countries have been invited to submit to the Secretary-General of the Conference their views and proposals with a view to summoning a subsequent meeting.

II. Raw Materials

1. *Timber.*—As valuable negotiations are in progress, discussion has been adjourned until the beginning of October, 1933, when a further meeting may be arranged.

2. *Coal.*—The competent organisation of the League of Nations will follow this work and ensure that all interests have been safeguarded. The Council of the League of Nations is requested to call a Conference of the principal producing and consuming countries to examine the measures to be taken if this effort has not within six months given the desired results.

3. *Copper.*—The Governments of the copper producing countries are invited to submit before September 15th, to the Secretary-General of the Conference, their views and proposals concerning the organisation of the production and international trade in copper with a view to the summoning of a meeting of experts qualified to examine if it is possible and expedient to conclude an agreement.

4. *Tin.*—It has been recommended that the countries which are not members of the International Tin Commission should enter into negotiations with that Commission.

Exhibit No. 2148

United States of America, Before Federal Trade Commission

In the Matter of Copper Exporters, Inc.

MEMORANDUM BEFORE BOARD OF REVIEW

This memorandum is submitted on behalf of Copper Exporters, Inc. in answer to an application for the issuance of a complaint by the Federal Trade Commission charging Copper Exporters, Inc. with a violation of "Section 2 of the Act of Congress approved April 10, 1918 (Webb Act), in entering into an association for the purpose of engaging in the export trade in copper and agreeing upon and fixing the price of copper in the foreign market with the result and effect of restraining trade within the United States and artificially enhancing and depressing the price of copper within the United States."

In accordance with the provisions of the Webb Act, Copper Exporters, Inc., has fully advised the Federal Trade Commission (hereinafter referred to as the Commission) with respect to its organization, business conduct; practices, management and relation to other associations, corporations, partnerships and individuals. In 1929, 1930 and 1931 respectively, the Federal Trade Commission requested Copper Exporters, Inc. to furnish it with certain detailed information. This was promptly furnished the Commission and is now on file. It is therefore not believed that a detailed review of that information is essential in a discussion of the specific charge contained in the application for the issuance of a complaint. (However, for the convenience of the Commission, we are attaching hereto the following exhibits:

Schedule I: Copy of Certificate of Incorporation of Copper Exporters, Inc.

Schedule II: Copy of By-Laws of Copper Exporters, Inc.

Schedule III: Form of agreement between Members and Copper Exporters, Inc.

Schedule IV: Form of agreement between foreign associates and Copper Exporters, Inc.

Schedule V: Copy of working regulations.

Schedule VI: Copy of the memorandum describing the purposes, methods and operations of Copper Exporters, Inc.

Schedule VII: Letter dated October 1, 1926, addressed to the Export Division of the Federal Trade Commission, Washington, D. C., setting forth the history and purpose of the formation of Copper Exporters, Inc.)

I. COPPER EXPORTERS, INC.

The following brief outline of the organization and operation of Copper Exporters, Inc., is intended merely to refer to those characteristics of Copper Exporters, Inc. which are deemed essential to a consideration of the question raised by the Commission.

Copper Exporters, Inc. is a Delaware corporation formed in accordance with the Webb Act (40 Stat. 516). It is engaged solely in export trade.

The outstanding stock of Copper Exporters, Inc. is held by eighteen companies known as Members. Each Member owns one share of the stock of the corporation. The Members are domestic corporations engaged in the production, smelting and refining of copper.

Pursuant to the plan of organization, agreements have been entered between Copper Exporters, Inc. and its respective Members. Agreements have also been entered into with four American corporations owning or selling the copper of mines situated in Mexico or South America and known as Non-European Associates, and with eight European corporations producing or selling copper abroad and known as European Foreign Associates. These agreements relate solely to the export trade of the United States.

The agreements entered with the Members and the Associates provide, among other things, that Copper Exporters, Inc. shall establish (1) the New York Committee, and (2) the Brussels Committee. The details of the operation and purpose of these Committees are set forth in the attached schedules.

The New York Committee is composed of ten representatives of the Members. The Foreign Associates may have a representative present at all meetings of the New York Committee but such representative has no right to cast a vote. *The determination of the price to be charged for copper in the export market rests primarily with this Committee.*

The Brussels Committee is composed of a representative of the New York Committee and a representative of each Foreign Associate. In voting upon any matters coming before this Committee, the representative of the New York Committee casts the votes of the respective members represented on the New York Committee to the same number and to the same effect as though they were cast on the respective subjects by the New York Committee. The Members therefore control ten votes on the Brussels Committee whereas the Foreign Associates control but eight. The agreements also provide that if any member of this Committee shall object to any action taken by the Committee, a new vote must be taken "and the voting thereon shall be on the basis of one vote to each Member or Foreign Associate for each five hundred tons of its copper production for the last preceding year". (Members' Agreement, page 4.) If the vote be taken on such a tonnage basis, the Members control more than sixty per cent. of the vote of the Brussels Committee.

It is therefore apparent (1) that the New York Committee is controlled entirely by the Members and (2) that the Members have ten out of eighteen votes on the Brussels Committee and consequently have the power to control the action of that Committee.

The method to be followed in establishing the price to be charged for copper in the export trade is set forth in the agreement as follows:

"4. The New York Committee, from time to time and as often as it deems desirable, will quote a c. i. f. basic price for electrolytic copper, to serve as a standard and to be known as the "Standard Electro General Sales Price", or a scale of such prices for different periods of shipment or for different export market ports. Such price or prices will be quoted, after consultation with or advices from the Brussels Committee, Standard Electro General Sales Price shall be based (a) on the cost of transportation to the European port to which current freight rate is lowest from New York or Baltimore and differentials for other ports are to be established by the New York Committee, from time to time approximately in accordance with actual freight conditions; (b) on electro copper in such shapes (wire bars, ingot bars, etc.) as the refineries furnish without premium. Any

premium collected for special shapes or allowances made for cathodes is for the account of the Seller. The Standard Electro General Sales Price, and any and all changes therein, will immediately be communicated to each Member and to the Foreign Associates. All sales made on the basis of that price by Members or Foreign Associates will be known as 'general sales'." (Members Agreement p. —.)

The Members and Foreign Associates also agree (1) to sell at the Standard Electro General Sales Price, or (2) to give notice of withdrawal from sales made at that price, or (3) to give notice of an intention to make sales at a lower price basis to be known as "special sales." (Members Agreement, p. 5.)

One further characteristic of Copper Exporters, Inc. should be noted. This corporation does not purchase, ship or sell copper either for its own use or otherwise and does not collect the proceeds of any sales. All of these operations are performed by the Members and Associates for themselves and at their own expense and through such agencies as they may deem desirable. (Members Agreement, p. 4.)

II. THE WEBB ACT

I have indicated how the price to be charged for copper in the export trade is established by the Members of Copper Exporters, Inc. I have also shown that the Members and Associates may refuse to sell copper at the established price or may, upon giving notice, sell copper at a lower price.

These activities of Copper Exporters, Inc. have been undertaken pursuant to the provisions of the Webb Export Act. Section 2 of that Act provides:

"That nothing contained in the Act entitled 'An Act to protect trade and commerce against unlawful restraints and monopolies', approved July second, eighteen hundred and ninety, shall be construed as declaring to be illegal an association entered into for the sole purpose of engaging in export trade and actually engaged solely in such export trade, or an agreement made or act done in the course of export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association: *And provided further*, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein."

From the "Notice of Hearing", dated July 13, 1931, I assume that this Board of Review is interested in the establishment of the price to be charged for copper in the export trade only insofar as the method used in arriving at a price and the price established have had the result and effect of (1) "restraining trade" within the United States, and (2) "artificially enhancing and depressing the price of copper within the United States." Consequently I shall limit my discussion to these considerations.

A. *The Meaning of "restraining trade in the United States" as used in the Webb Act.*

The words "restraint of trade" or "restrains trade" have a definite and well understood meaning both at common law and under modern federal statutes particularly the Sherman Act (26 Stat. 209).

The report of the Committee on Interstate Commerce of the United States Senate, which recommeded the adoption of the Webb Act, clearly indicates that the Congress intended the expression "restrains trade" to have specific application to a violation of the Sherman Act. In describing the expression "restrains trade" that Committee declared that by this provision it was intended that

"(a) The authority thereby conferred should not result in the restraint of trade within the United States which is clearly prohibited by the Sherman Act" (65th Congress, 1st Session Report. A copy of this Report, No. 9, is hereto attached as Schedule VIII).

At common law and under the Sherman Act, the words "restraint of trade" or "restrains trade" embraced only such acts, contracts, agreements or combinations "as by reason of intent or the inherent nature of the contemplated acts, prejudice the public interest by *unduly* restraining competition or *unduly* obstructing the course of trade." *Nash* v. *United States*, 229 U. S. 373, 376. See also *The Standard Oil Co.* v. *United States*, 221 U. S. 1, and *United States* v. *American Tobacco Company*, 221 U. S. 106.

The test to be applied in determining whether a restraint is undue and unreasonable within the meaning of the Sherman Act was clearly stated by Judge Sanborn in *Phillips* v. *Iola Portland Cement Co.*, 125 Fed. 593, 594:

"It is now settled by repeated decisions of the Supreme Court that the test of the validity of a contract, combination, or conspiracy challenged under the antitrust law is the direct effect of such a contract or combination upon competition in commerce among the states. If its necessary effect is to stifle competition, or to directly and substantially restrict it, it is void. But if it promotes, or only incidentally or indirectly restricts, competition in commerce among the states, while its main purpose and chief effect are to foster the trade and enhance the business of those who make it, it does not constitute a restraint of interstate commerce within the meaning of that law, and is not obnoxious to its provisions. This act of Congress must have a reasonable construction. It was not its purpose to prohibit or to render illegal the ordinary contracts or combinations of manufacturers, merchants, and traders, or the usual devices to which they resort to promote the success of their business, to enhance their trade, and to make their occupations gainful, so long as those combinations and devices do not necessarily have a direct and substantial effect to restrict competition in commerce among the states."

B. The Meaning of "artificially enhancing and depressing the price of copper", as used in the Webb Act.

Section 2 of the Export Act authorizes the formation of associations engaged solely in export trade, provided:

"That such association does not, either in the United States, or elsewhere, enter into any agreement, understanding, or conspiracy, or do any *act which artificially or intentionally enhances or depresses prices within the United States* of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein."

It is submitted that this language was not intended to apply to acts done in the course of export trade which incidentally or indirectly tended to affect prices in this country, but only to those acts whose intended or necessary effect was artificially to enhance or depress prices in the United States.

Indeed, an examination of the history of the Webb Act shows conclusively that the language quoted was adopted by Congress in recognition of the fact that the establishment of a price to be charged in the export market must necessarily have an indirect effect upon the prices charged in this country.

This construction is clearly supported by the report of the Committee on Interstate Commerce of the Senate which reported the Bill with its recommendations to the 55th Congress. The report states:

"Second. In section 2 of the bill as it passed the House, we recommend striking out at the end of the section the words 'and does not restrain the export trade of the United States' and inserting in lieu thereof the following:

" 'And is not in restraint of the export trade of any domestic competitor of such association. And provided further, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, nor do any act, which artificially or intentionally and unduly enhances prices within the United States of commodities of the class exported by such association.'

"As presented to us, this section provides that the Sherman law shall not be construed so as to make illegal an association entered into for the sole purpose of engaging in export trade, and actually engaged solely in export trade or any agreement made or act done in the course of export trade by such association. This section then provides that 'these associations or agents shall not be in restraint of trade within the United States, and shall not restrain the export trade of the United States.' Of course, we do not want to restrain trade within the United States as the first clause of the language quoted provides.

"Reduced to its final analysis this section attempts to give the right to enter into associations, make agreements, and do acts in restraint of export trade, while the second clause quoted takes away the right. To avoid the effect of the last clause, and at the same time to secure the purpose of this act in the interest of our foreign trade, the committee suggests the striking out of the last clause and inserting after the words 'United States' on line 19, page 2, the amendments as written above. By this change the committee aims to place three limitations upon these associations, their acts and agreements.

"(a) The authority hereby conferred should not result in the restraint of trade within the United States which is clearly prohibited by the Sherman Law.

"(b) While the purpose of the bill is to increase our foreign trade, it should not result in destroying the business of other companies, associations, or individuals who may be engaged in the foreign trade. The purpose is to increase and improve this trade, not to injure it.

"(c) While we realize that any sales in foreign commerce may incidentally and temporarily result in the increase in prices of the same articles to home consumers, these associations ought not to be permitted to so conduct their affairs as to artificially or intentionally and unduly enhance prices of the commodities in which they are dealing to the home consumers.

"To illustrate: While the large packers, in order to get their full share of the foreign trade, ought to be permitted to form associations for the purpose of buying meat products and selling them abroad, they ought not to be allowed to so conduct this branch of their business as to increase the prices at home more than would naturally result from the export trade. They ought not to be permitted to buy ostensibly for this trade and then use their stock for the purpose of depressing prices to the point of ruining home competitors, and then raise the prices to all consumers, and thereby secure a monopoly. Hence this last restriction."

This constitutes a specific recognition by the Committee of the Senate which recommended the Webb Act to Congress that the lawful activities of Associations formed pursuant to the Webb Act might incidentally and temporarily affect prices in the United States.

As finally passed by the Congress, the word "unduly" was omitted from the section. But clearly the proviso, as amended, had application only if the act done by the export association (1) artificially or (2) intentionally enahanced or depressed prices.

In the debates in the Senate on the bill, Mr. Pomerene, Chairman of the Committee on Interstate Commerce, further explained the meaning of this provision:

"Mr. Pomerene. Of course, we all recognize that under the law of supply and demand the sale of any products abroad will to some extent affect the supply and therefore the prices of goods domestically; but we sought—

"Mr. Norris. Mr. President—

"Mr. Pomerene. Pardon me just a minute. But we sought to avoid, or at least minimize, this result by forbidding these associations from doing anything which would artificially enhance these prices or which would intentionally and unduly enhance them, and we use that phrase because we had in mind the fact that under the natural laws of trade there would be some effect upon prices. I yield to the Senator from Nebraska." Vol. 55 Cong. Rec. p. 2786.

The language used by the Congress in Section 2 of the Webb Act is entirely consistent with these statements of its purpose. Moreover, insofar as the words "artificially" and "intentionally" are ambiguous, resort may be had to reports of the committee having the Bill in charge and to statements made by the Chairman of that committee.

See United States v. Trans-Missouri Freight Assn., 166 U. S. 290, 318; United States v. Thind, 261 U. S. 204; Duplex v. Deering, 254 U. S. 443, 475; and Black, Construction and Interpretation of Laws, 2nd Edition, 1911, page 312.

It is therefore submitted that under the Webb Act sales made in foreign commerce which "incidentally and temporarily result in the increase in price of the same articles to home consumers" are not within the condemnation of this proviso. In the words of the Act, it is only when such sales "artifically" or "intentionally" enhance or depress prices in this country, that they are condemned.

III. Copper Exporters, Inc. has not fixed the price of copper in the foreign market with the "result and effect of restraining trade in the United States and artificially enhancing or depressing the price of copper within the United States"

I am attaching hereto a graph marked Schedule IX showing daily copper prices in the export and domestic markets respectively from the formation of Copper Exporters, Inc. up to and including July 31, 1931. I am also enclosing Schedule X showing daily price changes in the domestic and export markets during the same period.

The export prices reflected in these schedules are those established by Copper Exporters, Inc. The domestic prices are calculated as the E. and M. J. daily average prices plus .225 per pound in order to arrive at an average delivered price for the Connecticut Valley.

In considering this chart the attention of the Commission is directed to the fact that the domestic price is an average daily price. In practice, therefore, daily sales were often made above and below the average price reflected on the chart.

From this material it appears that prior to July 31, 1931, there were one hundred and twenty-one changes made by Copper Exporters, Inc. in the price to be charged for copper in the export trade. A statistical analysis of these price changes shows that

83.5% (101 export price changes) of the changes in the export price of copper were changes fixed one or more days after similar domestic price movements had occurred in the United States.

13.5% (16 export price changes) of all price changes in the export market were fixed after similar domestic price movements had developed earlier in the same day.

3% (4 export price changes) were fixed before similar domestic price movements. (See Schedule XI hereto attached.)

These facts constitute a persuasive answer to the allegation that Copper Exporters, Inc. has fixed the price of copper in the foreign market with the "result and effect of restraining trade in the United States and artificially enhancing and depressing the price of copper within the United States." They demonstrate that, in general, price changes made in the export market by Copper Exporters, Inc. have been preceded by similar price changes in the domestic market. In only four instances does it appear that changes in the export market preceded domestic price changes. These apparent exceptions to the general practice are fully explained in Schedule XI. And, in any event, the domestic market has not been controlled by these sporadic changes in the export price over a period of approximately four years.

From an analysis of this material it is clear that changes in the export prices have been reflected in, and determined and controlled by, the prices of copper in the domestic market. It cannot therefore fairly be said that the domestic price for copper has been artificially or intentionally affected by the subsequent price changes made in the price of copper to be sold in the export market. It is not denied that changes made in the price of copper in the export trade may have had a remote and occasional effect upon the domestic price. But such an effect was recognized by Congress as a necessary result of the lawful activities of an export association operating in strict compliance with the provisions of the Webb Act. We submit, therefore, that (1) the price changes made in the export market have in general reflected prior price changes in the domestic market, and (2) that consequently export price changes could not have controlled or even directly affected the domestic price of copper.

An analysis of the material submitted also demonstrates that following advances made by Copper Exporters, Inc. in the price to be charged for copper in the export trade, the domestic price of copper has followed no immediate and regular course. On the contrary, as is to be expected under conditions of free competition, the domestic market has followed no immediate or regular course after advances have been decided upon or put into effect by Copper Exporters, Inc. Sometimes the domestic price has been lowered—sometimes the price has been increased or has remained unchanged, all according to the developments in the domestic market.

I have also considered the causes of the present low price of copper in connection with the allegation that Copper Exporters, Inc. has fixed the price of cooper in the foreign market "with the result and effect of * * * artificially * * * depressing the price of copper in the United States."

On July 31st the E. and M. J. price of copper in the domestic market reached the lowest point ever recorded. But the decline in the price of copper is not even remotely attributable to the activities of Copper Exporters, Inc. The true explanation of the present price of copper is to be found by reference to the unprecedented surplus stocks of copper on hand which continue to increase in spite of a decreasing demand for copper. I am attaching as Schedule XII a chart showing estimated copper stocks, production and consumption by months from the formation of Copper Exporters, Inc. to August 31, 1931.

From the chart it appears that on July 31st the world stocks of refined and unrefined copper constituted approximately 1,262,064,000 pounds of copper. During the month of July, these stocks had been increased by 30,850,000 pounds of copper. During the same month the apparent consumption of copper was only 203,670,000 pounds. The threat of this great surplus stock of copper overhanging a buyers' market is the direct cause of the lowest price in the history of copper. Nor is Copper Exporters, Inc. responsible for these surplus stocks of copper. No

action it has taken has directly affected these stocks for the reason that Copper Exporters, Inc. does not produce or buy or sell copper. These activities are conducted by individual copper companies. The surplus stocks are therefore directly attributable to excess production of the individual producers of copper.

For the reasons stated above it is respectfully submitted that Copper Exporters, Inc. has not agreed upon and fixed the price of copper in the foreign market "with the result and effect of restraining trade within the United States and artificially enhancing and depressing the price of copper within the United States."

WILLIAM J. DONOVAN.

EXHIBIT No. 2149

U. S. Tariff Commission Report, Nov. 30, 1931—Cost of Producing Copper in U. S.

[Cents per Pound]

	Direct Charges	Including Depletion, Interest	Silver ¢ per Ounce
Year 1928	9.22	13.29	58.176
1929	9.70	13.07	52.993
1930	9.93	14.07	38.154
Weighted Average	9.59	13.41	49.774

EOS-11/17/39

EXHIBIT No. 2150

United States Bureau of Labor Statistics, Average Wholesale Prices of Various Commodities, Monthly, 1929–1930

	Sulphur per ton at mines	Nickel per lb.	Aluminum per lb.	Quicksilver per 76 lb. flask	Per Barrel Crude Petroleum		Fuel Oil Okla. per barrel
					Kansas Okla.	California	
1929							
April	18.00	$0.3500	$0.2390	$123.500	$1.110	$0.850	$0.665
May	18.00	.3500	.2390	123.500	1.158	.850	.631
June	18.00	.3500	.2390	122.500	1.300	.910	.675
July	18.00	.3500	.2390	121.000	1.300	.850	.695
Aug	18.00	.3500	.2390	123.900	1.300	.850	.744
Sept	18.00	.3500	.2390	124.500	1.300	.850	.775
Oct	18.00	.3500	.2390	124.250	1.300	.850	.838
Nov	18.00	.3500	.2390	124.000	1.300	.850	.863
Dec	18.00	.3500	.2390	124.000	1.300	.850	.920
1930							
Jan	18.00	.3500	.2390	124.000	1.229	.850	.950
Feb	18.00	.3500	.2390	124.000	1.181	.850	.913
March	18.00	.3500	.2390	123.600	1.110	.868	.805
April	18.00	.3500	.2390	123.875	1.163	.880	.788

United States Bureau of Labor Statistics Average Wholesale Prices

	Iron Ore Bessemer Per Gross Ton	Pig Iron Basic Furnace Per Gross Ton	Pig Iron Bessemer At Pittsburgh Per Gross Ton	Pipe Cast Iron 6 Inch Per Net Ton	Steel Rails Open Hearth Per Gross Ton (at mill)
1929					
April	$4.650	$17.90	$20.260	$38.200	$43.00
May	4.650	18.375	20.760	36.350	43.00
June	4.650	18.500	20.760	35.600	43.00
July	4.650	18.500	20.760	34.100	43.00
August	4.650	18.500	20.760	34.100	43.00
September	4.650	18.500	20.760	34.100	43.00
October	4.650	18.500	20.760	35.600	43.00
November	4.650	18.500	20.760	35.600	43.00
December	4.650	18.500	20.760	35.600	43.00
1930					
January	4.650	18.500	20.760	36.850	43.00
February	4.650	18.500	20.760	38.725	43.00
March	4.650	18.500	20.760	39.525	43.00
April	4.650	18.500	20.760	40.200	43.00

	Anthracite (Retail) per ton	Bituminous (Retail) per ton	Wholesale Prices in dollars per 1,000 Cigarettes	Sugar (Refined) Wholesale per pound	Fresh Native Steers Wholesale Price (Chicago) per lb.	White Potatoes Wholesale (New York) per 100 lbs.
1929						
April	$14.71	$8.76	$5.321	$0.048	$0.224	$1.472
May	14.40	8.52	5.321	0.049	.230	1.622
June	14.48	8.50	5.321	0.049	.234	1.180
July	14.63	8.62	5.321	0.052	.238	2.119
Aug	14.67	8.69	5.321	0.054	.238	3.281
Sept	14.87	8.87	5.321	0.053	.236	3.222
Oct	14.98	8.98	5.597	0.054	.236	3.472
Nov	14.98	9.00	5.645	0.050	.240	3.410
Dec	15.00	9.05	5.645	0.050	.240	3.403
1930						
Jan	15.00	9.11	5.645	0.051	.240	3.476
Feb	15.00	9.04	5.645	0.049	.236	3.309
March	15.00	9.32	5.645	0.049	.240	2.837
April	14.99	8.84	5.645	0.048	.239	2.961

	Composite Price—Machines (Electric)	Lumber Cypress Shop (per 1,000 ft.)	Asphalt Bulk (per ton)	Crushed Stone 1½ in. (per cu. yd.)	Window Glass (per 50 sq. ft.)		Building Lime at plant (Composite) (per ton)	Building Sand at plant (Composite)
					Single A	Single B		
1929								
April	$84.583	$35.750	$12.00	$3.250	$4.200	$3.420	$7.898	$0.583
May	84.583	35.750	12.00	3.250	4.200	3.420	7.883	.579
June	84.583	34.750	12.00	3.250	4.200	3.420	7.850	.576
July	84.583	32.570	12.00	3.250	4.200	3.420	7.892	.575
Aug	84.583	32.750	12.00	3.250	4.200	3.420	7.887	.574
Sept	84.583	34.000	12.00	3.250	4.200	3.420	8.076	.573
Oct	84.667	34.000	12.00	3.250	4.200	3.420	8.075	.573
Nov	84.667	34.000	12.00	3.250	4.200	3.420	7.510	.575
Dec	84.667	34.000	12.00	3.400	4.200	3.420	7.901	.588
1930								
Jan	84.667	41.750	12.00	3.400	4.200	3.420	8.116	.600
Feb	84.667	45.000	12.00	3.400	4.200	3.420	8.081	.598
March	84.667	45.000	12.00	3.400	4.200	3.420	7.880	.590
April	84.667	45.000	12.00	3.400	4.200	3.420	7.936	.587

United States Bureau of Labor Statistics index numbers of wholesale prices of selected articles

[1926=100]

	Cattle and Feed	Fruit and Vegetables	Anthracite Coal	Electricity	Gas	Paint Materials
1929						
April	108.9	84.8	88.1	92.2	93.0	92.0
May	101.6	89.2	87.4	93.1	93.4	92.3
June	106.2	97.4	88.1	94.4	94.4	92.6
July	120.5	105.8	89.1	94.1	94.4	94.5
Aug	124.7	109.5	90.0	92.8	94.4	95.8
Sept	132.5	109.3	90.6	95.2	94.3	99.1
Oct	130.4	108.4	91.2	94.4	93.1	99.8
Nov	124.1	106.0	91.2	95.9	92.4	98.0
Dec	122.4	107.4	91.2	97.5	91.7	96.6
1930						
Jan	113.5	103.9	91.2	96.9	92.6	95.4
Feb	107.5	103.1	91.2	97.3	93.7	94.8
March	103.8	102.3	91.2	95.1	94.1	94.3
April	117.1	109.6	90.2	92.3	95.2	93.9

Exhibit No. 2150–A

[Submitted by Cornelius F. Kelley, President, Anaconda Copper Mining Co.]

January 7, 1940.

Economic Copper Study

The object of this report is to illustrate the more general uses of copper, proportionate weights, price comparisons and the resulting effect of *one cent* (plus or minus) change in the copper base price as affecting the average taxpayer or wage earner.

In a study of this nature, certain assumptions must of necessity be made. We believe that those assumptions that were made are conservative.

The accompanying Exhibits A, B, C, D and E indicate the diversified use made of copper by the average home owner, farmer, small manufacturer and utility company, as well as government agencies or utilities building rural or urban distribution systems. In addition, the component parts of the individual units are listed and compared on a price and percentage ratio basis.

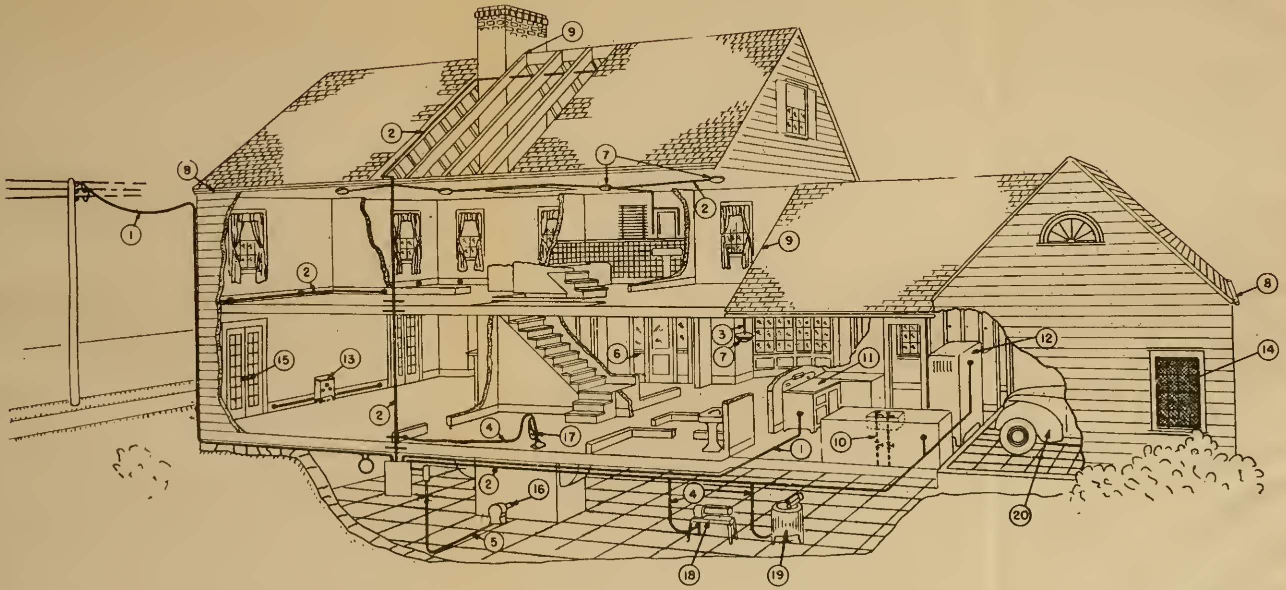
Exhibit F deals with data relative to the telephone industry. We feel that it is pertinent to this study as it constitutes one of the major outlets for copper, and forms a most important part in the everyday life of the average taxpayer and wage earner. Exhibits G and H show respectively for automobiles and household appliances the negligible effect of price of copper.

Statistical information pertaining to prices, weights, etc. are predicated on quotations in effect January 5, 1940. Such information has been obtained from the most reliable sources available.

Contents

EXHIBIT A
JANUARY 1940

MODERN SIX ROOM HOME



1. SERVICE ENTRANCE CABLE
2 ARMORED BUSHED CABLE
3. POSJ CORD
4. FLEXIBLE CORD
5. ARMORED THERMOSTAT CONTROL CABLE
6. BELL CORD
7 FIXTURES, OUTLETS, SWITCHES
8. COPPER GUTTER AND DOWNSPOUT
9. COPPER FLASHING
10 BRASS PLUMBING (SERVICE LINE & FITTINGS)
11. FURNISHINGS (RANGE, CURTAIN RODS, HOOKS, CLOCK FURNITURE HARDWARE, ETC.)
12 REFRIGERATOR
3. RADIO
14. COPPER SCREENS
15 HARDWARE (DOOR FITTINGS, WEATHER STRIPPING, ETC)
16. HEATING PLANT (OIL BURNER, COPPER TUBE FITTINGS, VALVES, ETC)
17. APPLIANCES (VACUUM CLEANER, IRON, TOASTER, FAN, 3 FLOOR LAMPS, 5 TABLE LAMPS)
18. ELECTRIC MANGLE
19 ELECTRIC WASHING MACHINE
20. AUTOMOBILE

SERVICE ENTRANCE CABLE

ARMORED BUSHED CABLE

POSJ CORD

FLEXIBLE CORD

ARMORED THERMOSTAT CONTROL CABLE

BELL CORD

EXHIBIT A

JANUARY 1940

	1 Length Feet	2 No. Conductors	3 Size Awg.	4 Retail Price	5 Copper Content Pounds	6 Value of Copper Content Base Price of 12-1/2 Cents per Lb.
1. Service Entrance Cable	75	2	4	$ 10.35	19	$ 2.38
2. Armored Bushed Cable	1,250	2	12	46.50	50	6.25
3. POSJ Cord	50	2	18	.43	1	.13
4. Flexible Cord	100	2	18	.99	1	.13
5. Armored Thermostat Control Cable	100	3	18	1.76	1	.13
6. Bell Cord	100	2	18	.34	1	.13
7. Fixtures, Outlets, Switches				32.00	16	2.00
8. Copper Gutter and Downspout 9. Copper Flashing				53.78	210	26.25
10. Brass Plumbing (Water distribution including Service Line and Fittings)				112.07	249	31.13
11. Furnishings (Range, Curtain Rods, Hooks, Clock, Furniture Hardware)				99.80	11	1.38
12. Refrigerator				150.00	28	3.50
13. Radio				40.00	5	.63
14. Copper Screens				26.25	50	6.25
15. Hardware (Door Fittings, Weather Stripping, etc.)				46.00	42	5.25
16. Heating Plant (Oil Burner, Copper Tube Fittings, Valves, etc.)				346.00	35	4.38
17. Appliances (Vacuum Cleaner, Iron, Toaster, Fan, 3 Floor Lamps, 5 Table Lamps)				121.88	16	2.00
18. Electric Mangle				90.00	5	.63
19. Electric Washing Machine				65.00	5	.63
20. Automobile				847.00	40	5.00
TOTAL					785	$ 98.18

EXHIBIT A

SUMMARY

Cost of Average House Exclusive of Lot (Per F. W. Dodge Corp.)	$ 5,400.00
Item 11. Average Cost - Furnishings	99.80
Item 12. Average Cost - Refrigerator (Electric)	150.00
Item 13. Average Cost - Radio	40.00
Item 17. Average Cost - Appliances (Electric)	121.88
Item 18. Average Cost - Mangle (Electric)	90.00
Item 19. Average Cost - Washing Machine	65.00
Item 20. Average Cost - Automobile	847.00
Total Cost of House Electrically Equipped, Including Automobile	$ 6,813.68
Total Copper Weight	785 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 98.13
Percent of Copper Cost (at 12-1/2¢ per pound Base Price) To Total Cost of House, Including Automobile	1.441%
A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $7.85, which on the basis of the above Total Cost of House Equipped amounts to	0.1152%

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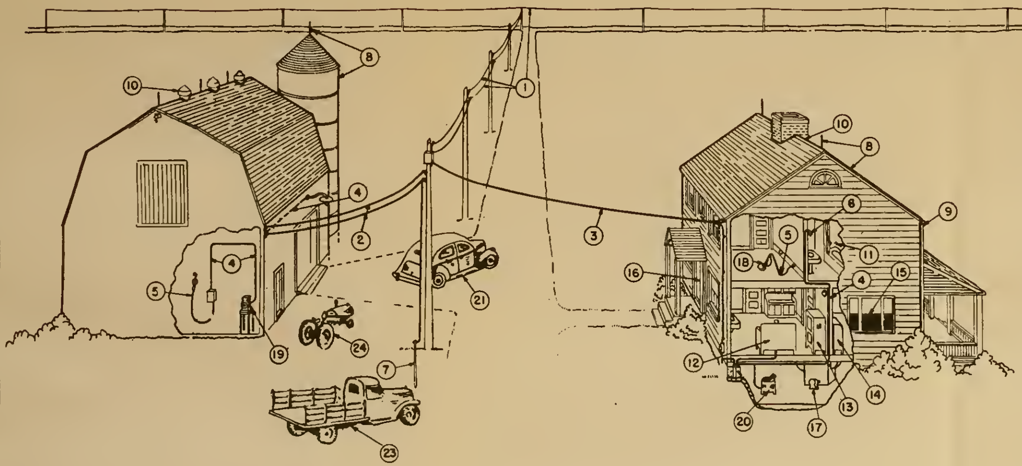
EXHIBIT B
JANUARY 1940

TYPICAL MODERN FARM WITH OUTBUILDINGS



1. BARE COPPER RURAL DISTRIBUTION LINE
2. WEATHERPROOF SECONDARY CONDUCTOR
3. SERVICE ENTRANCE CABLE
4. NON-METALLIC SHEATHED CABLE — ARMORED BUSHED CABLE
5. FLEXIBLE CORD (LAMPS, PORTABLE TOOLS, ETC)
6. FIXTURES, OUTLETS, SWITCHES
7. COPPER GROUND ROD
8. LIGHTNING RODS AND CABLE
9. COPPER GUTTER AND DOWNSPOUT
10. COPPER FLASHING
11. PLUMBING
12. FURNISHINGS (RANGE, CURTAIN RODS, HOOKS, CLOCK, FURNITURE HARDWARE, ETC.)
13. REFRIGERATOR
14. RADIO
15. COPPER SCREENS
16. HARDWARE (DOOR FITTINGS, WEATHERSTRIPPING, ETC.)
17. HEATING PLANT (OIL BURNER, COPPER TUBE FITTINGS, VALVES, ETC)
18. APPLIANCES (VACUUM CLEANER, IRON, TOASTER, FLOOR LAMPS, TABLE LAMPS)
19. ELECTRIC MOTOR (UTILITY)
20. ELECTRIC WASHING MACHINE
21. AUTOMOBILE
22. WATER SYSTEM, (ELECTRIC PUMP, COPPER TUBE AND FITTINGS)
23. MOTOR TRUCK ($1\frac{1}{2}$ TON)
24. FARM TRACTOR (18 H P.)

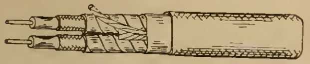
TC)

BARE PRIMARY CONDUCTOR

WEATHERPROOF CONDUCTOR

SERVICE ENTRANCE CABLE

ARMORED BUSHED CABLE



NON-METALLIC SHEATHED CABLE

FLEXIBLE CORD

POSJ CORD

JANUARY 1940

	1	2	3	4	5	6
	Length Feet	No. Conductors	Size Awg.	Retail Price	Copper Content Pounds	Value of Copper Content Base Price of 12-1/2 Cents per Lb.
1. Bare Copper Rural Distribution Line (1000# Per Mile, Including Transformers and Services at 2-1/2 Customers Per Mile Equals 400# Per Customer)		2	6	$400.00	400	$ 50.00
2. Weatherproof Secondary Conductor	200	2	4	8.73	50	6.25
3. Service Entrance Cable	200	2	4	27.60	50	6.25
4. Non-Metallic Sheathed Cable - Armored Bushed Cable	1,500	2	10	43.25	98	12.25
5. Flexible Cord (Lamps, Portable Tools, etc.)	200	2	18	1.98	2	.25
6. Fixtures, Outlets, Switches				35.50	22	2.75
7. Copper Ground Rod				2.15	7	.88
8. Lightning Rods and Cable				39.10	117	14.63
9. Copper Gutters and Leaders				45.50	135	16.88
10. Copper Flashing				12.50	50	6.25
11. Plumbing (Copper Water Tube and Fittings, Fixture Parts and Water Heater)				148.80	94	11.75
12. Furnishings (Electric Range, Curtain Rods, Hooks, Clocks, Furniture Hardware, etc.)				139.80	13	1.63
13. Electric Refrigerator				150.00	28	3.50
14. Radio				30.00	4	.50
15. Copper Screens				17.50	37	4.63
16. Hardware (Door Fittings, Weather Stripping, etc.)				40.00	40	5.00
17. Heating Plant (Oil Burner, Copper Tube, Fittings, Valves, etc.)				358.00	42	5.25
18. Appliances (Vacuum Cleaner, Iron, Toaster, Floor and Table Lamps)				79.38	10	1.25
19. Electric Motor (Utility)				22.95	7	.88
20. Electric Washing Machine				65.00	5	.63
21. Automobile				847.00	40	5.00
22. Water System (Electric Pump, Copper Tube and Fittings)				170.50	188	23.50
23. Motor Truck (1-1/2 Ton)				807.00	40	5.00
24. Farm Tractor (18 H.P.)				850.00	50	6.25
TOTAL					1,529	$191.16

EXHIBIT B

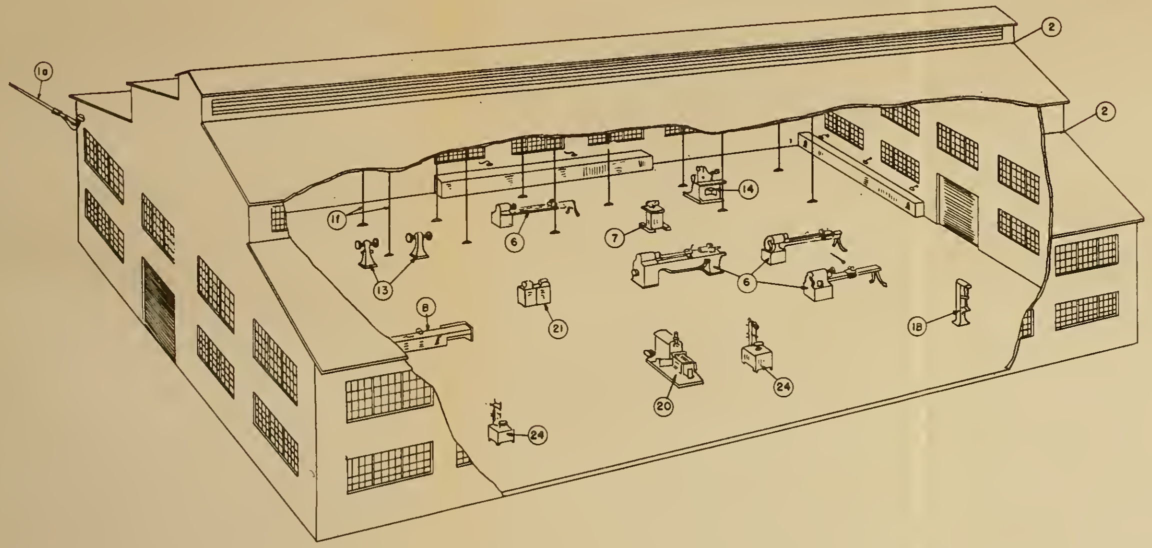
SUMMARY

Cost of Modern Six Room Farm House Exclusive of Land	$ 3,500.00
Cost of Barn and Silo Exclusive of Land	2,000.00
Item 1. Average Cost - Bare Copper Rural Distribution Line	400.00
Item 2. Average Cost - Weatherproof Secondary Conductor	8.73
Item 5. Average Cost - Flexible Cord	1.98
Item 7. Average Cost - Copper Ground Rod	2.15
Item 8. Average Cost - Lightning Rods and Cable	45.50
Item 12. Average Cost - Furnishings	139.80
Item 13. Average Cost - Electric Refrigerator	150.00
Item 14. Average Cost - Radio	30.00
Item 18. Average Cost - Appliances	79.38
Item 19. Average Cost - Electric Motor	22.95
Item 20. Average Cost - Electric Washing Machine	65.00
Item 21. Average Cost - Automobile	847.00
Item 22. Average Cost - Water System	170.50
Item 23. Average Cost - Motor Truck	807.00
Item 24. Average Cost - Farm Tractor	850.00
Total Cost of Farm House, Barn and Silo Electrically Equipped Including Automobile, Truck and Tractor	$ 9,119.99
Total Copper Weight	1,529 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 191.16
Percent of Copper Cost (At 12-1/2¢ per pound Base Price) To Total Cost of Farm Buildings, Including Automobile, Truck and Tractor	2.096%
A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $15.29, which on the basis of the above Total Cost of Farm Buildings Equipped amounts to	0.1677%

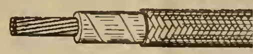
U. S. GOVERNMENT PRINTING OFFICE 1940

EXHIBIT C
JANUARY 1940

TYPICAL METAL FABRICATING PLANT



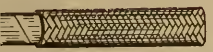
1a. SERVICE ENTRANCE, POWER AND LIGHTING CONDUCTORS
1b. RUBBER AND BRAID SINGLE CONDUCTOR CONDUIT CIRCUITS POWER AND LIGHTS
1f FLEXIBLE CORD
2 COPPER FLASHING
6. LATHE
7. GRINDER
8. DRAWBENCH
13. EMERY WHEEL
14 SCREW MACHINE
18. PUNCH PRESS
20. SHAPER
21. TUBE POINTER
24. DRILL PRESS



POWER CABLE

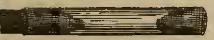
BUILDING WIRE

FLEXIBLE CORD



POWER CABLE

BUILDING WIRE



FLEXIBLE CORD

EXHIBIT C

JANUARY 1940

	1	2	3	4	5	6
	Length Feet	No. Conductors	Size Awg.	Retail Price	Copper Content Pounds	Value of Copper Content Base Price of 12-1/2 Cents per lb.
1. Wiring, Including Service Entrance						
(a) Varnished-Cambric Braid Covered Cable	600	1	4/0	$ 88.20	392	$ 49.00
(b) Rubber and Braid Covered Wire	2,000	1	6	76.96	162	20.25
(c) Rubber and Braid Covered Wire	2,600	1	8	66.38	130	16.25
(d) Rubber and Braid Covered Wire	2,000	1	10	31.08	64	8.00
(e) Rubber and Braid Covered Wire	2,400	1	12	27.29	48	6.00
(f) Flexible Cord (Lamps, Portable Tools, etc.)	500	2	18	4.95	10	1.25
2. Copper Flashing				96.00	400	50.00
3. Plumbing, Copper Tubes, Fittings, Valves and Fixture Parts				150.50	233	29.13
4. Convectors, Copper Tubes and Fittings Without Heating Plant				1,293.70	1,795	224.38
5. Fixtures, Outlets, Switches and Starter Equipment				725.00	215	26.88
6. 3 - 9" Lathes - 1/2 H.P. Each				3,679.50	80	10.00
7. 1 - 18" Double End Grinder - 10 H.P.				362.00	112	14.00
8. 1 - 10,000 Pound Draw Bench - 10 H.P.				1,112.00	112	14.00
9. 1 - Exhaust System - 3 H.P.				555.00	55	6.88
10. 1 - Cross Cut Wood Saw - 1 H.P.				135.00	35	4.38
11. 1 - Rip Saw - 7-1/2 H.P.				396.00	146	18.25
12. 1 - 24" Band Saw - 5 H.P.				423.00	123	15.38
13. 3 - Emery Wheels - 1 H.P. Each				1,215.00	315	39.38
14. 2 - Screw Machines - 5 H.P. Each				6,268.00	268	33.50
15. 4 - 10" to 16" Lathes - 3 H.P. Each				12,880.00	880	110.00
16. 1 - 31" Lathe - 10 H.P.				2,112.00	112	14.00
17. 3 - Multi-Spindle Drill Presses - 5 H.P. Each				5,328.00	828	103.50
18. 1 - Punch Press - 3 H.P.				130.00	55	6.88
19. 2 - Profilers - 1/8 H.P. Each				272.00	72	9.00
20. 1 - Shaper - 5 H.P.				3,134.00	67	8.38
21. 1 - Tube Pointer - 10 H.P.				612.00	112	14.00
22. 1 - Hand Miller - 3 H.P.				555.00	55	6.88
23. 1 - 1/2" Tap Machine - 3 H.P.				305.00	55	6.88
24. 3 - 11" Drill Presses - 7-1/2 H.P. Each				8,064.00	1,314	164.25
25. 3 - 12" Drill Presses - 7-1/2 H.P. Each				8,514.00	1,314	164.25
TOTAL					9,559	$1,194.93

EXHIBIT C

SUMMARY

Cost of 50' x 100' Typical Factory Building Exclusive of Land	$ 22,000.00
Item 5. Average Cost - Fixtures, Outlets, Switches and Starter Equipment	725.00
Items 6 to 25. Average Cost - Manufacturing Equipment	56,051.50
Total Cost of Factory Building and Manufacturing Equipment	$ 78,776.50
Total Copper Weight	9,559 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 1,194.88
Percent of Copper Cost (at 12-1/2¢ per pound Base Price) To Total Cost of Factory Building and Manufacturing Equipment	1.517%
A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $95.59 which on the basis of the above Total Cost of Factory Building and Equipment amounts to	0.1213%

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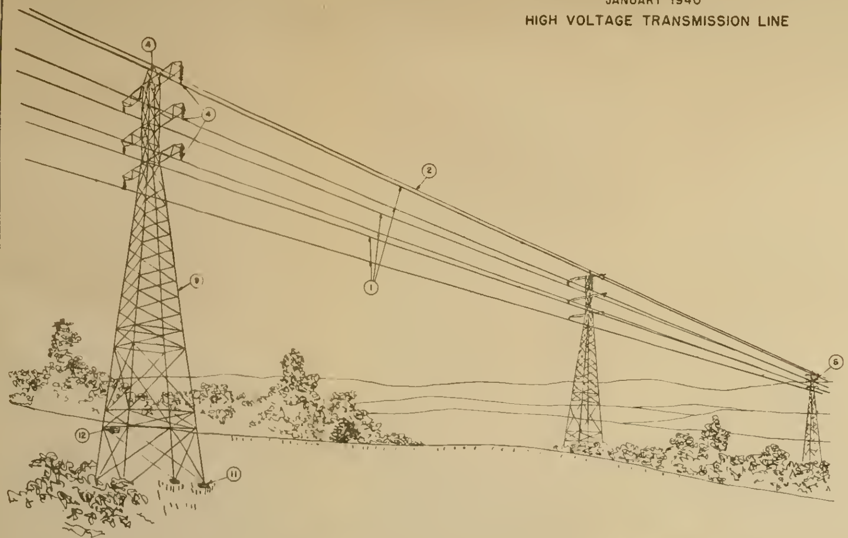
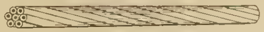
EXHIBIT D
JANUARY 1940
HIGH VOLTAGE TRANSMISSION LINE



1 POWER CONDUCTOR, 300,000 CM HD COPPER
2 GROUND WIRE, 3/8" DIA COPPER COVERED STEEL
4 INSULATORS AND HARDWARE
6 LINE SECTIONALIZING EQUIPMENT
9 STEEL TOWER
11 CONCRETE TOWER FOOTING
12 WARNING SIGN



3/8" COPPER COVERED STEEL

300,000 CM HD COPPER

EXHIBIT D

JANUARY 1940

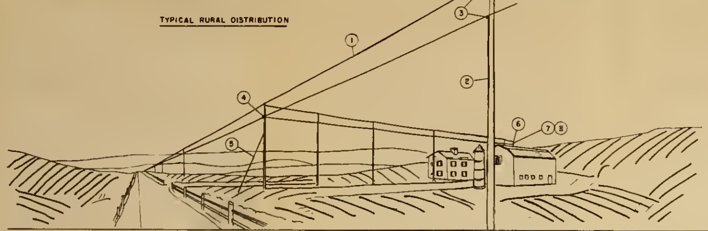
	Copper Content Lbs. Per Mile	Cost Per Mile
1. Conductor - 300 MCM HDC	30,833	$ 2,926
2. Ground Wire - 3/8" Copper Covered Steel	535	321
3. Hauling Conductor and Ground Wire		333
4. Insulators and Hardware (Material and Labor)		1,667
5. Hauling Insulators and Hardware		117
6. Line Sectionalizing Equipment (Material & Labor)	10	158
7. Ground Wire Hardware (Material and Labor)		38
8. Arcing Protection (Material and Labor)		467
9. Steel Towers		2,926
10. Labor of Erection		1,078
11. Concrete and Piling for footings (Material & Labor)		250
12. Danger Signs (Material and Labor)		13
13. Labor of Excavating for Footings		1,000
14. Labor-Setting Footings and Backfill		525
15. Hauling Tower and Footing Materials		367
TOTAL	31,378	$ 14,563
Engineering, Supervision, Construction Equipment, Temporary Construction, Contingencies, Insurance		2,913
Total Cost Per Mile of Typical High Voltage (132 kv) Double Circuit Transmission Line		$ 17,476

SUMMARY

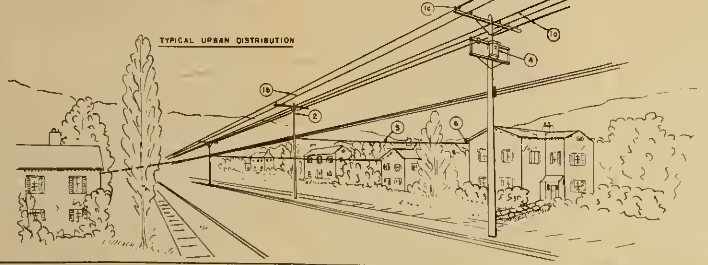
Total Copper Weight	31,378 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 3,922.25
Percent of Copper Cost (at 12-1/2¢ per pound Base Price) To Total Cost per mile of Double Circuit Line	22.44%

A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $313.78 which on the basis of the above Total Cost per mile of Typical High Voltage Double Circuit Transmission Line amounts to 1.795%

EXHIBIT E
JANUARY, 1940



1 CONDUCTOR, NO 6 AWG HD COPPER
2 POLE
3 INSULATORS AND HARDWARE
4 GROUND WIRE
5 GUY
6 TRANSFORMER
7 SERVICE ENTRANCE
8 METER



1a POWER CONDUCTOR 1-NO 6 AWG MHD COPPER TBWP
2-NO 2 AWG MHD COPPER TBWP
1b STREET LIGHT CONDUCTOR, 2-NO. 6 AWG MHD COPPER TBWP
1c INSULATOR
2 POLE AND CROSS ARM
4 TRANSFORMER
5 SERVICE ENTRANCE
6 METER

EXHIBIT E

JANUARY 1940

TYPICAL RURAL DISTRIBUTION

	Copper Content Lbs. Per Mile	Cost Per Mile
1. Conductor #6 HDC (Material and Labor)	839	$ 167.00
2. Poles (Material and Labor)		440.00
3. Insulators and Hardware (Material and Labor)		66.00
4. Ground Wire (Material and Labor)	45	12.50
5. Guys (Material and Labor)		22.50
6. Transformers (Material and Labor)	113	237.50
7. Services (Material and Labor)	62	37.00
8. Meters (Material and Labor)	4	50.00
Total Cost per Mile of Typical Rural Distribution (6900 Volts)	1,063	$1,032.69

SUMMARY

Total Copper Weight	1,063 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 132.56
Percent of Copper Cost (12-1/2¢ per pound Base Price) To Total Cost Per Mile of Line	12.87%
A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $10.63 which on the basis of the above Total Cost per Mile of Typical Rural Distribution line amounts to	1.029%

EXHIBIT E

JANUARY 1940

TYPICAL URBAN DISTRIBUTION

	Copper Content Lbs. Per Mile	Cost Per Mile
1. Conductor and Insulators - 1 #6 and 2 #2 TBWP for Primary and 2 #6 TBWP for Street Lights (Material and Labor)	3,550	$ 2,602
2. Poles and Cross Arms (Material and Labor)		1,916
3. Guys (Material and Labor)		118
4. Transformers (Material and Labor)	870	892
5. Services	1,324	911
6. Meters	200	1,423
Total (Material and Labor)	5,944	$ 7,862
Engineering, Supervision, Construction Equipment, Contingencies, Stores and Insurance		1,572
Total Cost Per Mile of Typical Urban Distribution (2300 Volts)		$ 9,434

SUMMARY

Total Copper Weight	5,944 pounds
Base Copper Price	12-1/2¢ per pound
Total Cost of Copper at Base Price	$ 743.00
Percent of Copper Cost (12-1/2¢ per pound Base Price) To Total Cost Per Mile of Line	7.875%
A variation of one cent in the copper base price of 12-1/2¢ affects the base price value of the copper content by $59.44 which on the basis of the above Total Cost per Mile of Typical Urban Distribution Line amounts to	0.6301%

EXHIBIT F. JANUARY 1940. THE TELEPHONE INDUSTRY

Total Investment, Plant and Equipment	$5, 200, 000, 000
Total Copper Content, pounds	1, 750, 000, 000
Total Number of Telephones	20, 800, 000
Total Investment per Telephone	$250. 00
Total Copper Content per Telephone, pounds	84
Total Cost of Copper (per Telephone) at Base Price	$10. 50
Percent of Copper Cost (at 12½¢ per pound Base Price) To Total Investment per Telephone	4. 200%
A variation of one cent in the copper base price of 12½¢ affects the base price value of the copper content by $0.84 which on the basis of the above Total Investment per Telephone amounts to	0. 3360%

EXHIBIT G. JANUARY 1940 ESTIMATED COPPER CONTENT OF AVERAGE AUTOMOBILE

Retail price of average 1939 automobile (Four Door Sedan, F. O. B. Factory, Standard Equipment)		$847. 00
Copper Content:		
1. Radiator tank, core and thermostat	21 lbs.	
2. Generator, starter, distributor, ignition coil, wiring, switches, horn, battery ground	10½ lbs.	
3. Hub caps, lamp reflectors, speedometer, gauges, instrument panel, miscellaneous trim	4½ lbs.	
4. Bearings, bushings, gaskets, valve and pump parts, hardware and miscellaneous	4 lbs.	
Total		40 lbs.
Value of Copper Content (Base Price 12½¢ per pound)		$5. 00
Per Cent of Copper Cost (at 12½¢ per lb. Base Price)		0. 59%
A variation of one cent in the base price of copper affects the base price value of the copper content by $0.40 which, on the basis of the price of the automobile, is		0. 0472%

EXHIBIT H. JANUARY 1940, ELECTRICAL HOUSEHOLD APPLIANCES

	Retail Price	Estimated Copper Content Lbs.	Value of Copper Content (Base Price of 12½¢ per lb.)	Per Cent of Copper Cost (at 12½¢ Base Price) to Cost of Article	Per Cent Variation of 1¢ Change in Copper Base Price
Refrigerator	$150.00	28	$3.50	2.33	0.187
Radio	40.00	5	.62½	1.56	.125
Washing Machine	65.00	5	.62½	.96	.077
Vacuum Cleaner	54.25	3	.37½	.69	.055
Floor Lamp	7.50	1	.12½	1.67	.133
Table Lamp	3.50	1	.12½	3.57	.286
Mangle	90.00	5	.62½	.69	.055
Iron	3.00	1	.12½	4.17	.333
Fan	20.00	3	.37½	1.88	.150
Toaster	3.00	1	.12½	4.17	.333

Chart based on following statistical data faces this page.

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924

[Column 1=Copper Export Association, Inc., prices CIF Base ports; column 2=E. & M. J. Domestic prices FOB Refinery; column 3=Excess column 1 over column 2]

1919	January 1 Foreign	January 2 Domestic	January 3 Excess foreign	February 1 Foreign	February 2 Domestic	February 3 Excess foreign	March 1 Foreign	March 2 Domestic	March 3 Excess foreign	April 1 Foreign	April 2 Domestic	April 3 Excess foreign
1					18.375¢			14.562¢			15.325¢	
2											15.350	
3					18.437			14.500			15.350	
4					18.500			14.750			15.350	
5					18.125			14.812			15.350	
6					18.000			14.812				
7					18.000			14.812			15.312	
8					17.750			14.812			15.312	
9											15.312	
10					17.625			14.812			15.250	
11					17.000			14.812			15.225	
12								14.750				
13					17.000			14.750			15.225	
14					16.750			14.750			15.075	
15					16.750			14.812			15.125	
16											15.125	
17					16.750			14.812			15.125	
18					16.625			14.812			15.125	
19					16.187			14.812			15.175	
20					15.750			14.812				
21					15.437			14.812			15.175	
22								14.875			15.155	
23											15.175	
24					15.187			15.050			15.175	
25					15.150						15.275	
26					15.125			15.050			15.275	
27					15.125			15.075				
28					15.000			15.100			15.300	
29								15.100			15.275	
30											15.325	
31								15.300				

1919	May 1 Foreign	May 2 Domestic	May 3 Excess foreign	June 1 Foreign	June 2 Domestic	June 3 Excess foreign	July 1 Foreign	July 2 Domestic	July 3 Excess foreign	August 1 Foreign	August 2 Domestic	August 3 Excess foreign
1		15.350¢					19.380¢	19.050¢	0.330¢	22.600¢	22.750¢	-0.150¢
2		15.350		17.710¢	16.350¢	1.360¢	19.380	19.100	0.280	22.600	22.750	-0.150
3		15.350		17.710	16.400	1.310	20.330	19.200	1.130			
4				17.710	16.600	1.110	20.330			22.600	22.750	-0.150
5		15.350		17.710	16.650	1.060	20.330			22.600	22.750	-0.150
6		15.350		17.710	16.950	0.760				22.600	22.390	0.210
7		15.350		17.710	17.100	0.610	19.770	19.730	0.040	22.600	22.100	0.500
8		15.375					19.770	19.850	-0.080	22.600	21.670	0.930
9		15.375		18.570	17.250	1.320	19.970	19.850	0.120	22.600	21.625	0.975
10		15.375		18.750	17.350	1.400	19.970	19.980	-0.010			
11				18.750	17.600	1.150	20.960	20.500	0.460	22.600		
12		15.425		18.750	17.600	1.150	20.960	20.750	0.210	22.600	21.750	0.850
13		15.650		18.570	17.800	0.770				23.360	21.800	1.560
14		15.750		18.570	17.500	1.070	21.250	20.900	0.350	23.360	22.000	1.360
15		15.850					21.250	21.600	-0.350	23.360	22.000	1.360
16	17.300¢	16.100	1.200¢	18.570	17.500	1.070	21.550	21.900	-0.350	23.360	22.375	0.985
17	17.300	16.100	1.200	18.570	17.600	0.970	22.241	22.120	0.121			
18				18.980	17.600	1.380	22.740	22.600	0,140	23.360	22.880	0.480
19	17.300	16.350	0.950	18.980	17.825	1.155	22.740	23.120	-0.380	23.360	23.000	0.360
20	17.300	16.350	0.950	19.190	17.865	1.325				23.740	23.050	0.690
21	17.710	16.350	1.360	19.190	17.875	1.315	22.740	22.600	0.140	23.740	23.375	0.365
22	17.710	16.350	1.360				22.740	23.380	-0.640	24.650	23.120	1.530
23	17.710	16.350	1.360	18.880	18.100	0.780	23.130	23.100	0.030	24.650	22.120	2.530
24	17.710	16.350	1.360	18.880	18.250	0.630	23.330	23.100	0.230			
25				18.880	18.250	0.630	23.330	23.100	0.230	24.650	22.380	2.270
26	17.710	16.350	1.360	19.600	18.350	1.250	23.330	23.100	0,230	24.650	22.125	2.525
27	17.710	16.350	1.360	19.600	18.500	1.100				24.650	22.125	2.525
28	17.710	16.350	1.360	20.010	18.600	1.410	23.330	23.100	0.230	24.650	21.870	2.780
29	17.710	16.350	1.360				23.330	23.100	0.230	24.650	22.000	2.650
30	17.710			20.010	18.775	1.235	23.430	23.100	0.330	24.650	22.000	2.650
31	17.710						23.430	22.970	0.460			

Electrolytic copper, daily prices offered by Copper Export Association for export, c. i. f. usual ports, and domestic daily average, f. o. b. refinery, New York, 1919–1924

Source: Prepared by R. R. Eckert, former Manager, Copper Export Association, Inc.

(Face p. 13610)

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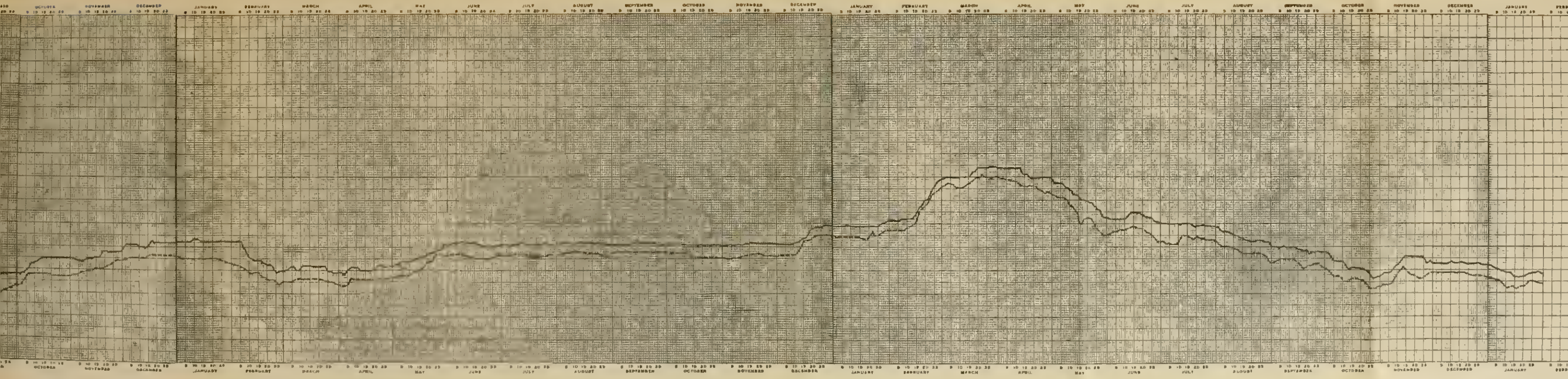
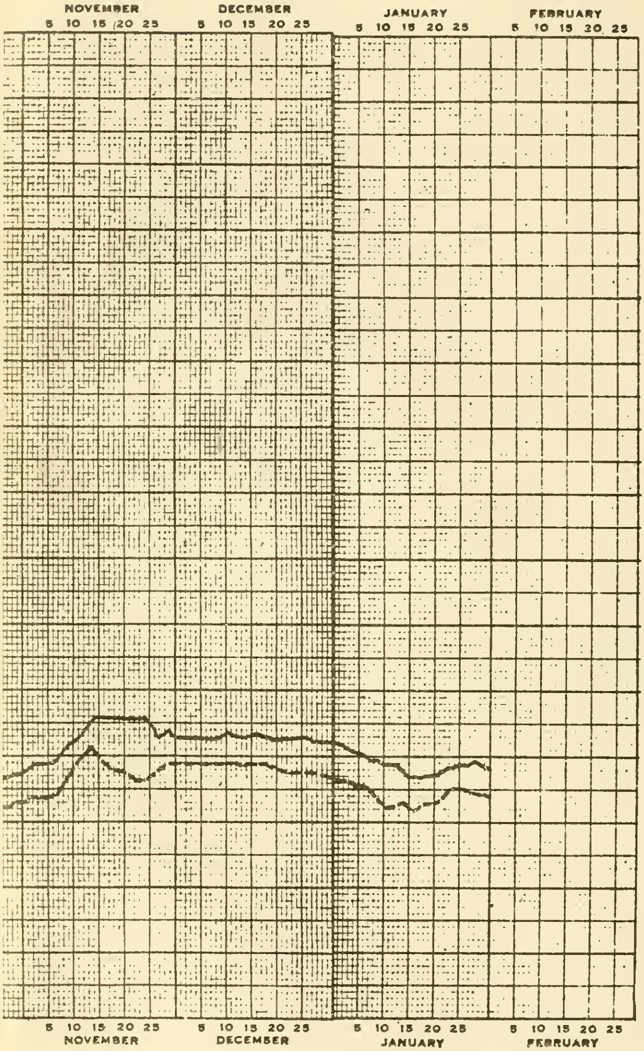


JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
1924



1924

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31	17.71(							23.430	22.970	0.460			

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

	1	2	3	1	2	3	1	2	3	1	2	3
	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign
1919	**September**			**October**			**November**			**December**		
1				24,380¢	21.125¢	3.255¢	22,785¢	21.062¢	1.723¢	21.430¢	17.875¢	3.555¢
2	24.650¢	22.125¢	2.525¢	24.380	21.375	3.005				21.430	17.87	53.555
3	24.650	22.125	2.525	24.380	21.375	3.005	22.785	21.000	1.785	19.600	17.875	1.725
4	24.650	22.125	2.525	24.390	21.375	3.015	22.785			19.600	17.500	2.100
5	24.650	22.125	2.525				22.785	20.855	1.930	19.600	17.500	2.100
6	24.380	22.125	2.255	24.390	21.375	3.015	22.785	20.875	1.910	19.600	17.875	1.725
7				24.390	21.625	2.765	22.785	20.875	1.910			
8	24.380	22.125	2.255	24.390	21.625	2.765	21.911	20.875	1.036	19.830	18.000	1.830
9	24.380			24.390	21.750	2.640				19.830	18.250	1.580
10	24.380			24.390	21.750	2.640	21.911	20.250	1.661	19.830	18.250	1.580
11	24.380	22.125	2.255	24.390	21.750	2.640	21.835	20.375	1.460	19.830	18.375	1.455
12	24.380	22.000	2.380				21.835	20.312	1.523	19.830	18.375	1.455
13	24.380	22.000	2.380	24.390			21.835	20.125	1.710	19.830	18.375	1.455
14				24.390	21.750	2.640	21.685	20.125	1.560			
15	24.380	22.000	2.380	24.390	21.750	2.640	21.685	20.000	1.685	19.380	18.375	1.455
16	24.380	22.000	2.380	23.255	21.750	1.505				19.830	18.375	1.455
17	24.380	22.000	2.380	23.255	21.750	1.505	21.685	19.870	1.815	19.830	18.375	1.455
18	24.300	22.000	2.380	23.255	21.750	1.505	21.685	19.375	2.310	19.830	18.375	1.455
19	24.380	22.000	2.380				21.685	19.437	2.248	19.830	18.375	1.455
20	24.380	21.750	2.630	23.255	21.750	1.505	21.685	19.125	2.560	19.830	18.400	1.430
21				23.090	21.750	1.340	21.685	18.750	2.935			
22	24.380	21.750	2.630	23.090	21.750	1.340	21.430	18.750	2.680	19.830	18.450	1.380
23	24.380	21.250	3.130	23.090	21.625	1.465				19.830	18.500	1.330
24	24.380	20.750	2.630	23.090	21.500	1.590	21.430	18.750	2.680	19.830	18.550	1.280
25	24.380	21.125	3.255	23.090	21.375	1.715	21.430	18.500	2.930	19.830		
26	24.380	21.250	3.130				21.430	18.375	3.055	19.830	18.550	1.280
27	24.380	21.125	3.255	23.090	21.375	1.715	21.430			19.830	18.550	1.280
28				23.090	21.312	1.778	21.430	18.125	3.305			
29	24.380	21.000	3.380	22.785	21.312	1.473	21.430	18.000	3.430	19.830	18.725	1.105
30	24.380	21.125	3.255	22.785	21.187	1.598				19.830	18.725	1.105
31				22.785	21.062	1.723				19.830	18.725	1,105
1920	**January**			**February**			**March**			**April**		
1							19.580¢	18.550¢	1.030¢	19.580¢	18.800¢	0.780¢
2	19.830¢	18.725¢	1.105¢	20.830¢	18.750¢	2.080¢	19.330	18.450	0.880	19.580	18.825	0.755
3	20.670	18.725	1.955	20.420	18.750	1.670	19.420	18.400	1.020	19.880	18.850	1.030
4				20.420	18.750	1.670	19.420	18.400	1.020			
5	20.920	18.975	1.945	20.420	18.550	1.870	19.330	18.400	0.930	19.880	18.850	1.020
6	20.960	18.975	1.985	20.420	18.375	2.045	19.330	18.400	0.930	19.880	18.850	10.030
7	20.960	18.975	1.985	19.750	18.375	1.375				19.880	18.850	1.030
8	20.960	19.050	1.910				19.330	18.400	0.930	19.880	18.750	1.130
9	20.917	19.050	1.867	19.750	18.375	1.375	19.250	18.280	0.970	19.880	18.650	1.230
10	20.917	19.050	1.867	19.750	18.375	1.375	19.250	18.200	1.050	19.880	18.600	1.280
11				19.750	18.375	1.375	19.170	18.150	1.020			
12	20.917	19.050	1.867	19.750			18.920	18.150	0.770	19.880	18.600	1.280
13	20.920	19.050	1.870	19.750	18.375	1.375	18.920	18.150	0.770	19.830	18.750	1.130
14	20.920	19.050	1.870	19.750	18.375	1.375				19.880	18.750	1.130
15	20.920	18.975	1.945				18.920	18.050	0.070	19.880	18.625	1.255
16	20.920	18.975	1.945	19.750	18.375	1.375	18.920	18.000	0.920	19.880	18.625	1.255
17	20.920	18.978	1.942	19.750	18.500	1.250	18.920	17.950	0.970	19.880	18.625	1.255
18				19.750	18.125	1.625	18.920	17.950	0.970	19.710		
19	20.920	18.912	2.008	19.750	18.625	1.125	18.920	18.000	0.920	19.710	18.500	1.20
20	20.920	18.912	2.008	19.750	18.687	1.063	19.130	18.100	1.030	19.710	18.500	1.210
21	20.920	18.912	2.008	19.750	18.687	1.063				19.710	18.500	1.210
22	20.920	18.775	2.145				19.130	18.200	0.930	19.710	18.300	1.410
23	20.920	18.900	2.020	19.580			19.290	18.300	0.990	19.710	18.450	1.260
24	20.920	18.875	2.045	19.580	18.800	0.780	19.290	18.425	0.865	19.650	18.500	1.150
25				19.580	18.800	0.780	19.290	18.450	0.840			
26	20.920	18.875	2.045	19.580	18.750	0.830	19.380	18.550	0.830	19.600	18.500	1.100
27	20.920	18.875	2.045	19.580	18.650	0.930	19.580	18.650	0.930	19.600	18.750	0.850
28	20.580	18.875	1.705	19.580	18.600	0.980				19.600	18.750	0.850
29	20.580	18.750	1.830				19.580	18.800	0.780	19.600	18.700	0.900
30	20.830	18.750	2.080				19.580	18.800	0.780	19.635	18.700	0.935
31	20.830	18.750	2.080				19.580	18.800	0.780			

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

	1	2	3	1	2	3	1	2	3	1	2	3
	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign
1920	May			June			July			August		
1	19,635¢	18,750¢	0.885¢	19.380¢	18.350¢	1.030¢	19.330¢	18.200¢	1.130¢			
2				19.380	18.350	1.030	19.250	18.350	0.900	19.500¢	18.425¢	1.075¢
3	19.875	18.800	1.075	19.300	18.350	0.950	19.250	18.350	0.900	19.500	18.425	1.075
4	19.875	18.800	1.075	19.330	18.350	0.980				19.500	18.375	1.125
5	20.120	18.800	1.320	19.250	18.350	0.900	19.250			19.500	18.425	1.075
6	20.120	18.750	1.370				19.250	18.500	.0750	19.500	18.425	1.075
7	20.120	18.650	1.470	19.330	18.250	1.080	19.250	18.500	0.750	19.460	18.550	0.910
8	20.120	18.650	1.470	19.330	18.250	1.080	19.250	18.600	0.650			
9				19.330	18.250	1.080	19.290	18.600	0.690	19.460	18.550	0.910
10	20.120	18.600	1.520	19.330	18.200	1.130	19.290	18.600	0.690	19.460	18.550	0.910
11	19.610	18.600	1.010	19.330	18.150	1.180				19.460	18.550	0.910
12	19.570	18.650	0.920	19.330	18.100	1.230	19.370	18.650	0.720	19.460	18.425	1.035
13	19.570	18.650	0.920				19.370	18.650	0.720	19.520	18.425	1.095
14	19.570	18.600	0.970	19.330	18.100	1.230	19.390	18.650	0.740	19.420	18.425	0.995
15	19.570	18.600	0.970	19.330	18.000	1.330	19.450	18.650	0.800			
16				19.330	18.000	1.330	19.450	18.625	0.825	19.420	18.400	1.020
17	19.650	18.500	1.150	19.330	17.850	1.480	19.450	18.600	0.850	19.420	18.350	1.070
18	19.530	18.400	1.130	19.330	17.800	1.530				19.420	18.350	1.070
19	19.530	18.400	1.130	19.330	17.750	1.580	19.460	18.600	0.860	19.420	18.300	1.120
20	19.530	18.300	1.230				19.460	18.600	0.860	19.420	18.250	1.170
21	19.410	18.250	1.160	19.300	17.750	1.580	19.460	18.600	0.860	19.380	18.175	1.205
22	19.410	18.250	1.160	19.330	17.850	1.480	19.490	18.675	0.815			
23				19.330	17.850	1.480	19.490	18.675	0.815	19.380	18.175	1.205
24	19.410	18.150	1.260	19.330	17.850	1.480	19.500	18.675	0.825	19.450	18.175	1.275
25	19.420	18.150	1.270	19.330	17.850	1.480				19.450	18.175	1.275
26	19.420	18.150	1.270				19.500	18.675	0.825	19.450	18.200	1.250
27	19.420	18.150	1.270	19.330	17.900	1.430	19.500	18.675	0.825	19.450	18.200	1.250
28	19.420	18.250	1.170	19.330	18.000	1.330	19.500	18.675	0.825	19.450	18.200	1.250
29	19.420	18.250	1.170	19.330	18.100	1.230	19.500	18.500	1.000			
30				19.330	18.100	1.230	19.500	18.500	1.000	19.450	18.200	1.250
31							19.500	18.500	1.000	19.470	18.200	1.270

	1	2	3	1	2	3	1	2	3	1	2	3
	September			October			November			December		
1	19.470¢	18.200¢	1.270¢	18.920¢	17.725¢	1.195¢	16.605¢	14.800¢	1.805¢	14.750¢	13.250¢	1.500¢
2	19.470	18.175	1.295	18.750	17.585	1.165	16.790			14.580	13.375	1.205
3	19.470	18.175	1.295	18.790			16.790	14.725	2.065	14.580	13.425	1.155
4	19.470	18.175	1.295	18.790	17.500	1.290	16.500	14.675	1.825	14.580	13.500	1.080
5				18.330	17.375	0.955	16.580	14.600	1.980			
6	19.470	18.175	1.295	18.630	17.375	1.255	15.400	14.600	0.800	14.580	13.625	0.955
7	19.470	18.175	1.295	18.540	17.100	1.440				14.170	13.750	0.420
8	19.330	18.250	1.080	18.540	17.100	1.440	15.520	14.600	0.920	14.170	13.750	0.420
9	19.280	18.250	1.030	18.540	16.850	1.690	15.440	14.600	0.840	14.170	13.625	0.545
10	19.280	18.250	1.030				15.440	14.600	0.840	14.170	13.625	0.545
11	19.280	18.250	1.030	18.540	16.750	1.790	15.440	14.550	0.890	14.170	13.625	0.545
12				18.540			15.440	14.500	0.940			
13	19.280	18.250	1.030	18.540	16.500	2.040	15.440	14.500	00.940	14.170	13.625	0.545
14	19.280	18.250	1.030	18.210	16.000	2.210				14.170	13.625	0.545
15	19.280	18.250	1.030	18.210	15.600	2.610	15.440	14.450	0.990	14.170	13.250	0.920
16	19.280	18.225	1.055	18.210	15.350	2.860	15.400	14.425	0.975	14.170	13.250	0.920
17	19.280	18.150	1.130				15.400	14.425	0.975	14.170	13.250	0.920
18	19.160	18.150	1.010	18.210	15.100	3.110	15.400	14.350	1.050	14.170	13.250	0.920
19				18.210	15.100	3.110	15.400	14.250	1.150			
20	19.160	18.150	1.010	17.960	15.100	2.860	15.400	14.125	1.275	14.170	13.100	1.070
21	19.160	18.150	1.010	17.670	15.100	2.570				14.170	13.100	1.070
22	19.160	18.150	1.010	17.420	15.100	2.320	15.400	13.975	1.425	14.170	13.000	1.170
23	19.160	18.150	1.010	17.420	14.975	2.445	14.960	13.850	1.110	14.170	12.875	1.295
24	19.160	18.025	1.135	17.000			14.960	13.725	1.235	13.950	12.750	1.200
25	19.160	17.975	1.185	17.000	14.850	2.150	15.000					
26				16.800	14.850	1.980	15.000	13.625	1.375			
27	19.160	17.950	1.210	16.830	14.850	1.980	15.000	13.500	1.500	13.950	12.750	1.200
28	19.160	18.025	1.135	16.830	14.850	1.980				14.000	12.625	1.375
29	19.080	17.875	1.205	16.575	14.850	1.725	14.750	13.375	1.375	14.000	12.625	1.375
30	19.080	17.875	1.205	16.605	14.850	1.755	14.750	13.250	1.500	13.520	12.375	1.145
31										13.520	12.125	1.395

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

1921	January 1 Foreign	January 2 Domestic	January 3 Excess foreign	February 1 Foreign	February 2 Domestic	February 3 Excess foreign	March 1 Foreign	March 2 Domestic	March 3 Excess foreign	April 1 Foreign	April 2 Domestic	April 3 Excess foreign
1				13.490¢	12.500¢	0.990¢	13.150¢	12.125¢	1.025¢	12.830¢	12.500¢	0.330¢
2				13.470	12.500	0.970	13.150	12.125	1.025	12.920	12.500	0.420
3	13.250¢	12.250¢	1.000¢	13.470	12.500	0.970	13.060	12.100	0.960			
4	13.250	12.375	0.875	13.470	12.625	0.845	12.980	12.100	0.880	12.960	12.500	0.460
5	13.250	12.500	0.750	13.380	12.625	0.755	12.980	12.100	0.880	12.960	12.500	0.460
6	13.456	12.625	0.831							12.960	12.500	0.460
7	13.380	12.625	0.755	13.330	12.750	0.580	13.000	12.000	1.000	12.960	12.500	0.460
8	13.380	12.625	0.755	13.330	12.750	0.580	13.000	11.925	1.075	12.960	12.500	0.460
9				13.330	12.750	0.580	13.000	11.875	1.125	12.960	12.500	0.460
10	13.380	12.625	0.755	13.330	12.750	0.580	13.000	11.750	1.250			
11	13.500	12.750	0.750	13.330	12.750	0.580	12.920	11.750	1.170	12.960	12.500	0.460
12	13.500	12.750	0.750	13.330			12.920	11.750	1.170	12.960	12.500	0.460
13	13.540	12.750	0.790	13.460	12.750	0.710				12.960	12.500	0.460
14	13.540	12.750	0.790	13.460	12.750	0.710	12.920	11.750	1.170	13.010	12.500	0.510
15	13.453	12.750	0.703	13.395	12.750	0.645	12.920	11.750	1.170	13.010	12.375	0.635
16				13.395			12.920	11.750	1.170	13.010	12.375	0.635
17	13.453	12.750	0.703	13.395	12.650	0.745	12.920	11.750	1.170			
18	13.453	12.750	0.703	13.395	12.650	0.745	12.920	11.750	1.170	13.010	12.375	0.635
19	13.453	12.750	0.703	13.395	12.550	0.845	12.920	11.750	1.170	13.010	12.375	0.635
20	13.453	12.650	0.803							13.010	12.375	0.635
21	13.453	12.550	0.903	13.170	12.500	0.670	12.920	11.872	1.048	13.010	12.375	0.635
22	13.533	12.550	0.903	13.170			12.830	11.872	0.958	13.010	12.375	0.635
23				13.150	12.250	0.900	12.830	11.872	0.958	13.050	12.375	0.675
24	13.453	12.500	0.953	13.150	12.250	0.900	12.830	12.000	0.830			
25	13.453	12.500	0.953	13.150	12.250	0.900	12.763	12.000	0.763	13.050	12.425	0.625
26	13.453	12.500	0.853	13.150	12.250	0.900	12.763	12.125	0.638	13.050	11.425	0.625
27	13.470	12.500	0.970							13.050	12.425	0.625
28	13.620	12.500	0.760	13.150	12.125	1.025	12.920	12.125	0.795	13.050	12.375	0.675
29	13.315	12.500	0.815				12.920	12.373	0.545	13.050	12.375	0.675
30							12.830	12.500	0.330	13.050	12.375	0.675
31	13.445	12.500	0.945				12.830	12.500	0.330			

1921	May 1 Foreign	May 2 Domestic	May 3 Excess foreign	June 1 Foreign	June 2 Domestic	June 3 Excess foreign	July 1 Foreign	July 2 Domestic	July 3 Excess foreign	August 1 Foreign	August 2 Domestic	August 3 Excess foreign
1				14.015¢	13.065¢	0.950¢	13.140¢	12.437¢	0.703¢	12.620¢	11.750¢	0.870¢
2	13.050¢	12.375¢	0.675¢	13.960	13.065	0.895	13.140	12.437	0.703	12.530	11.750	0.780
3	13.050	12.375	0.675	13.960	13.065	0.895				12.460	11.750	0.710
4	13.020	12.375	0.645	13.960	13.000	0.960	13.140			12.460	11.625	0.835
5	13.020	12.375	0.645				13.140	12.437	0.703	12.380	11.625	0.655
6	12.970	12.425	0.545	13.960	12.950	1.010	13.120	12.437	0.683	12.330	11.690	0.640
7	12.983	12.425	0.558	13.960	12.875	1.085	13.120	12.437	0.683			
8				13.960	12.875	1.085	13.120	12.437	0.683	12.330	11.690	0.640
9	12.970	12.500	0.470	13.830	12.750	1.080	13.040	12.437	0.603	12.330	11.750	0.580
10	13.210	12.500	0.710	13.840	12.750	1.090				12.420	11.750	0.670
11	13.210	12.625	0.585	13.840	12.750	1.090	13.040	12.437	0.603	12.420	11.750	0.670
12	13.210	12.625	0.585				13.040	12.437	0.603	12.380	11.750	0.630
13	13.290	12.625	0.665	13.830	12.675	1.155	13.040	12.437	0.603	12.380	11.750	0.630
14	13.290	12.750	0.640	13.690	12.675	1.015	13.040	12.375	0.665			
15				13.690	12.675	1.015	13.040	12.375	0.665	12.380	11.700	0.680
16	13.380	12.750	0.630	13.680	12.675	1.005	13.040	12.250	0.790	12.460	11.675	0.785
17	13.380	12.750	0.630	13.680	12.675	1.005				12.320	11.625	0.695
18	13.585	12.750	0.835	13.680	12.625	1.055	13.040	12.250	0.790	12.290	11.625	0.665
19	13.710	12.875	0.835				13.000	12.125	0.875	12.210	11.625	0.585
20	13.710	12.875	0.835	13.680	12.500	1.180	13.000	12.125	0.875	12.170	11.625	0.545
21	13.790	13.000	0.790	13.680	12.500	1.180	13.000	12.000	1.000			
22				13.590	12.500	1.090	12.920	12.000	0.920	12.170	11.437	0.733
23	13.835	13.000	0.835	13.590	12.500	1.090	12.650	11.875	0.775	12.170	11.437	0.733
24	13.960	13.125	0.835	13.300	12.500	0.800				12.170	11.437	0.733
25	13.960	13.125	0.835	13.300	12.500	0.800	12.650	11.750	0.900	12.170	11.437	0.733
26	14.015	13.125	0.890				12.620	11.750	0.870	12.170	11.500	0.670
27	14.015	13.065	0.950	13.300	12.500	0.800	12.620	11.750	0.870	12.170	11.580	0.590
28	14.015	13.065	0.950	13.300	12.500	0.800	12.620	11.750	0.870			
29				13.300			12.620	11.750	0.870	12.170	11.500	0.670
30	14.015			13.140	12.500	0.640	12.620	11.750	0.870	12.170	11.625	0.545
31	14.015	13.065	0.950							12.310	11.750	0.560

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

1921	September 1 Foreign	September 2 Domestic	September 3 Excess foreign	October 1 Foreign	October 2 Domestic	October 3 Excess foreign	November 1 Foreign	November 2 Domestic	November 3 Excess foreign	December 1 Foreign	December 2 Domestic	December 3 Excess foreign
1	12.420¢	11.750¢	0.670¢	12.790¢	12.250¢	0.550¢	13.460¢	12.750¢	0.710¢	13.900¢	13.437¢	0.463¢
2	12.420	11.750	0.670	--------	--------	--------	13.460	12.750	0.710	14.100	13.437	0.663
3	12.540	11.750	0.790	12.830	12.312	0.518	13.390	12.750	0.640	14.100	13.437	0.663
4	--------	--------	--------	12.830	12.437	0.393	13.380	12.750	0.630	--------	--------	--------
5	12.540	--------	--------	12.920	12.625	0.295	13.380	12.750	0.630	14.100	13.500	0.600
6	12.650	11.812	0.838	12.920	12.750	0.170	--------	--------	--------	14.100	13.500	0.600
7	12.693	11.812	0.881	13.040	12.750	0.290	13.330	12.875	0.455	14.100	13.500	0.600
8	12.693	11.875	0.818	13.250	12.750	0.500	13.380	--------	--------	14.100	13.500	0.600
9	12.630	11.875	0.755	--------	--------	--------	13.440	12.875	0.565	14.100	13.500	0.600
10	12.630	11.875	0.755	13.250	12.750	0.500	13.440	12.937	0.503	13.980	13.500	0.480
11	--------	--------	--------	13.395	12.750	0.640	13.440	--------	--------	--------	--------	--------
12	12.630	11.875	0.755	13.395	--------	--------	13.460	--------	--------	13.980	13.500	0.480
13	12.630	11.875	0.755	13.388	12.750	0.638	13.460	12.937	0.523	13.980	13.500	0.480
14	12.630	11.875	0.755	13.460	12.750	0.710	13.500	13.000	0.500	13.925	13.500	0.425
15	12.630	11.875	0.755	13.460	12.750	0.710	13.500	13.000	0.500	13.980	13.562	0.418
16	12.630	11.875	0.755	--------	--------	--------	13.500	13.000	0.500	14.037	13.625	0.412
17	12.630	11.875	0.755	13.460	12.750	0.710	13.500	13.000	0.500	14.250	13.625	0.625
18	--------	--------	--------	13.460	12.750	0.710	13.670	13.062	0 608	--------	--------	--------
19	12.630	11.937	0.693	13.460	12.750	0.710	13.750	13.062	0.688	14.130	13.625	0.505
20	12.630	11.937	0.693	13.460	12.750	0.710	--------	--------	--------	14.170	13.625	0.545
21	12.630	11.937	0.693	13.460	12.687	0.773	13.790	13.125	0.667	14.170	13.625	0.545
22	12.750	12.062	0.688	13.460	12.687	0.773	13.750	13.187	0.563	14.170	13.625	0.545
23	12.750	12.062	0.688	--------	--------	--------	13.750	13.250	0.500	14.170	13.625	0.545
24	12.750	12.062	0.688	13.460	12.687	0.773	13.750	--------	--------	14.170	13.625	0.545
25	--------	--------	--------	13.460	12.687	0.773	13.750	13.312	0.438	--------	--------	--------
26	12.750	12.125	0.625	13.460	12.687	0.773	13.750	13.312	0.438	--------	--------	--------
27	12.790	12.125	0.665	13.460	12.687	0.773	--------	--------	--------	14.170	13.625	0.545
28	12.790	12.187	0.603	13.460	12.687	0.773	13.750	13.375	0.375	14.170	13.625	0.545
29	12.790	12.250	0.540	13.460	12.687	0.773	13.750	13.375	0.375	14.170	13.625	0.545
30	12.790	12.250	0.540	--------	--------	--------	13.750	13.375	0.375	14.170	13.625	0.545
31	--------	--------	--------	13.460	12.687	0.773	--------	--------	--------	14.170	13.562	0.608

1922	January 1 Foreign	January 2 Domestic	January 3 Excess foreign	February 1 Foreign	February 2 Domestic	February 3 Excess foreign	March 1 Foreign	March 2 Domestic	March 3 Excess foreign	April 1 Foreign	April 2 Domestic	April 3 Excess foreign
1	--------	--------	--------	14.210¢	13.250¢	0.960¢	12.975¢	12.500¢	0.475¢	12.870¢	12.375¢	0.495¢
2	--------	--------	--------	14.210	13.250	0.960	13.030	12.500	0.530	--------	--------	--------
3	14.170¢	13.500¢	0.670¢	14.210	13.200	1.010	13.030	12.500	0.530	12.780	12.375	0.405
4	14.170	13.500	0.670	14.210	13.200	1.010	13.150	12.500	0.650	12.830	12.312	0.518
5	14.210	13.500	0.710	--------	--------	--------	--------	--------	--------	13.030	12.312	0.718
6	14.210	13.500	0.710	14.210	13.125	1.085	13.150	12.562	0.588	13.030	12.450	0.580
7	14.210	13.500	0.710	13.920	13.125	0.795	13.087	12.625	0.462	13.130	12.687	0.443
8	--------	--------	--------	13.920	13.000	0.920	13.087	12.650	0.437	13.130	12.625	0.505
9	14.330	13.500	0.830	13.790	13.000	0.790	13.083	12.650	0.433	--------	--------	--------
10	14.330	13.500	0.830	13.500	12.875	0.625	13.125	12.625	0.500	13.130	12.625	0.505
11	14.330	13.500	0.830	13.500	12.875	0.625	13.203	12.625	0.578	13.115	12.625	0.490
12	14.330	13.500	0.830	--------	--------	--------	--------	--------	--------	13.030	12.625	0.405
13	14.290	13.500	0.790	13.400	--------	--------	13.203	12.625	0.578	13.020	12.625	0.395
14	14.210	13.500	0.710	13.400	12.937	0.463	13.210	12.625	0.585	13.030	12.625	0.405
15	--------	--------	--------	13.400	12.937	0.463	13.205	12.625	0.580	13.060	12.625	0.435
16	14.210	13.500	0.710	13.400	12.812	0.588	13.205	12.625	0.580	--------	--------	--------
17	14.210	13.500	0.710	13.400	12.750	0.650	13.170	12.625	0.545	13.060	12.625	0.435
18	14.210	13.500	0.710	13.300	12.750	0.550	13.170	12.625	0.545	13.060	12.625	0.435
19	14.210	13.500	0.710	--------	--------	--------	--------	--------	--------	13.060	12.625	0.435
20	14.210	13.500	0.710	13.280	12.687	0.593	13.170	12.625	0.545	13.050	12.625	0.425
21	14.210	13.500	0.710	13.250	12.625	0.625	13.170	12.625	0.545	13.025	12.625	0.400
22	--------	--------	--------	13.250	--------	--------	13.170	12.625	0.545	13.200	12.625	0.575
23	14.210	13.500	0.710	13.180	12.625	0.555	13.170	12.562	0.608	--------	--------	--------
24	14.210	13.437	0.773	13.100	12.562	0.538	13.170	12.562	0.608	13.200	12.625	0.575
25	14.210	13.437	0.773	12.880	12.500	0.380	12.930	12.562	0.368	13.110	12.625	0.485
26	14.210	13.375	0.835	--------	--------	--------	--------	--------	--------	13.100	12.625	0.475
27	14.210	13.375	0.835	12.920	12.425	0.495	12.930	12.500	0.430	13.100	12.625	0.475
28	14.210	13.375	0.835	12.960	12.500	0.460	12.920	12.500	0.420	13.100	12.625	0.475
29	--------	--------	--------	--------	--------	--------	12.900	12.450	0.450	13.185	12.687	0.498
30	14.210	13.312	0.898	--------	--------	--------	12.900	12.437	0.463	--------	--------	--------
31	14.210	13.312	0.898	--------	--------	--------	12.870	12.375	0.495	--------	--------	--------

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

	1	2	3	1	2	3	1	2	3	1	2	3
	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign	Foreign	Domestic	Excess foreign
1922	May			June			July			August		
1	13.185¢	12.687¢	0.498¢	14.080¢	13.625¢	0.455¢	14.070¢	13.612¢	0.458¢	14.110¢	13.700¢	0.410¢
2	13.185	12.750	0.435	14.080	13.687	0.393	--------	--------	-------	14.105	13.687	0.418
3	13.230	12.750	0.480	14.120	13.687	0.433	14.070	13.625	0.445	14.150	13.750	0.400
4	13.230	12.750	0.480	--------	--------	-------	14.070	--------	-------	14.170	13.750	0.420
5	13.330	12.750	0.580	14.120	13.687	0.433	14.000	13.625	0.375	14.170	13.737	0.433
6	13.355	12.750	0.585	14.200	13.687	0.553	14.000	13.625	0.375	--------	--------	-------
7	--------	--------	-------	14.130	13.687	0.443	14.060	13.625	0.435	14.170	13.737	0.433
8	13.355	12.750	0.605	14.175	13.687	0.488	14.075	13.687	0.388	14.170	13.737	0.433
9	13.355	12.750	0.605	14.175	13.625	0.550	--------	--------	-------	14.100	13.737	0.363
10	13.355	12.750	0.605	14.140	13.625	0.515	14.090	13.687	0.403	14.095	13.750	0.345
11	13.370	12.812	0.558	--------	--------	-------	14.145	13.687	0.458	14.095	13.750	0.345
12	13.380	12.875	0.505	14.140	13.562	0.578	14.145	13.687	0.458	14.110	13.750	0.360
13	13.450	12.937	0.513	14.140	13.562	0.578	14.180	13.687	0.493	--------	--------	-------
14	--------	--------	-------	14.140	13.562	0.578	14.040	13.687	0.353	14.150	13.750	0.400
15	13.490	13.000	0.490	14.140	13.500	0.640	14.080	13.625	0.455	14.150	13.750	0.400
16	13.480	13.000	0.480	14.140	13.500	0.640	--------	--------	-------	14.150	13.750	0.400
17	13.590	13.000	0.590	14.060	13.500	0.560	14.080	13.625	0.455	14.150	13.750	0.400
18	13.530	13.187	0.343	--------	--------	-------	14.080	13.625	0.455	14.140	13.750	0.390
19	13.615	13.250	0.365	14.000	13.500	0.500	14.080	13.625	0.455	14.140	13.750	0.390
20	13.650	13.375	0.275	14.000	13.500	0.500	14.090	13.625	0.465	--------	--------	-------
21	13.665	--------	-------	14.030	13.437	0.593	14.100	13.625	0.475	14.140	13.725	0.415
22	13.730	13.500	0.230	13.990	13.475	0.515	14.080	13.625	0.455	14.130	13.775	0.405
23	13.730	13.500	0.230	14.000	13.500	0.500	--------	--------	-------	14.130	13.725	0.405
24	13.790	13.625	0.165	14.000	13.550	0.450	14.090	13.625	0.465	14.130	13.687	0.443
25	13.790	13.625	0.165	--------	--------	-------	14.150	13.687	0.463	14.100	13.687	0.413
26	13.830	13.625	0.205	14.000	13.550	0.450	14.150	13.687	0.463	14.100	13.687	0.413
27	13.830	13.625	0.205	14.000	13.562	0.438	14.090	13.687	0.403	--------	--------	-------
28	--------	--------	-------	14.000	13.562	0.438	14.080	13.687	0.393	14.090	13.625	0.465
29	14.090	13.625	0.465	14.000	13.562	0.438	14.080	13.687	0.393	14.070	13.625	0.445
30	14.090	--------	-------	14.070	13.562	0.508	--------	--------	-------	14.070	13.625	0.445
31	14.090	13.625	0.465	--------	--------	-------	14.110	13.687	0.423	14.070	13,737	0.333
	September			October			November			December		
1	14.070¢	13.737¢	0.333¢	--------	--------	-------	14.020¢	13.562¢	0.458¢	14.110¢	13.625¢	0.485¢
2	14.075	13.750	0.325	14.080¢	13.750¢	0.330¢	14.020	13.500	0.520	14.100	13.650	0.475
3	--------	--------	-------	14.080	13.750	0.330	14.020	13.500	0.520	--------	--------	-------
4	14.075	--------	-------	14.080	13.750	0.330	14.095	13.500	0.595	14.090	13.650	0.440
5	14.070	13.750	0.320	14.080	13.725	0.355	--------	--------	-------	14.090	13.650	0.440
6	14.070	13.750	0.320	14.080	13.725	0.355	14.020	13.550	0.470	14.090	13.650	0.440
7	14.090	13.750	0.340	14.075	13.725	0.350	14.015	--------	-------	14.115	13.687	0.428
8	14.080	13.750	0.330	--------	--------	-------	14.020	13.550	0.470	14.110	13.687	0.423
9	14.070	13.750	0.320	14.075	13.725	0.350	14.070	13.550	0.520	14.110	13.687	0.423
10	--------	--------	-------	14.070	13.725	0.345	14.060	13.550	0.510	--------	--------	-------
11	14.080	13.750	0.330	14.070	13.725	0.345	14.060	13.625	0.435	14.160	13.700	0.460
12	14.070	13.750	0.320	14.070	--------	-------	--------	--------	-------	14.160	13.700	0.460
13	14.080	13.750	0.330	14.070	13.687	0.383	14.115	13.625	0.490	14.180	13.812	0.368
14	14.090	13.750	0.340	14.070	13.625	0.445	14.115	13.625	0.490	14.250	14.000	0.250
15	14.080	13.750	0.330	--------	--------	-------	14.115	13.625	0.490	14.325	14.065	0.260
16	14.080	13.750	0.330	14.070	13.562	0.508	14.115	13.625	0.490	14.325	14.250	0.075
17	14.100	--------	-------	14.070	13.562	0.508	14.110	13.650	0.460	--------	--------	-------
18	14.100	13.750	0.350	14.030	13.652	0.468	14.110	13.650	0.460	14.535	14.300	0.235
19	14.100	13.750	0.350	14.060	13.562	0.498	--------	--------	-------	14.655	14.300	0.355
20	14.120	13.750	0.360	14.050	13.562	0.488	14.110	13.650	0.460	14.710	14.300	0.410
21	14.120	13.750	0.360	14.050	13.562	0.488	14.115	13.650	0.465	14.790	14.450	0.340
22	14.100	13.750	0.350	--------	--------	-------	14.115	13.650	0.465	14.830	--------	-------
23	14.100	13.750	0.350	14.050	13.562	0.488	14.105	13.625	0.480	14.840	14.500	0.340
24	--------	--------	-------	14.030	13.562	0.468	14.105	13.625	0.480	14.840	14.500	0.340
25	14.100	13.750	0.350	14.030	13.562	0.468	14.105	13.625	0.480	--------	--------	-------
26	14.100	13.750	0.350	14.030	13.562	0.468	--------	--------	-------	14.840	14.500	0.340
27	14.090	13.750	0.340	14.020	13.562	0.458	14.105	13.625	0.480	14.895	14.500	0.395
28	14.100	13.750	0.350	14.020	13.562	0.458	14.110	13.625	0.485	14.900	14.500	0.400
29	14.100	13.750	0.350	--------	--------	-------	14.110	13.625	0.485	14.900	14.500	0.400
30	14.080	13.750	0.330	14.020	13.562	0.458	14.110	--------	-------	14.900	14.500	0.400
31	--------	--------	-------	14.020	13.562	0.458	--------	--------	-------	14.900	--------	-------

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

1923	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign
	January			February			March			April		
1				15.150¢	14.750¢	0.400¢	16.950¢	16.625¢	0.325¢			
2	14.900¢	14.437¢	0.463¢	15.150	14.750	0.400	16.970	16.625	0.345	17.390¢	16.937¢	0.453¢
3	14.900	14.437	0.463	15.150	14.750	0.400	16.970	16.750	0.220	17.390	16.937	0.453
4	14.900	14.500	0.400							17.375	16.937	0.438
5	14.900	14.500	0.400	15.130	14.750	0.380	16.970	16.750	0.220	17.360	16.875	0.485
6	14.900	14.500	0.400	15.130	14.750	0.380	17.065	16.687	0.378	17.360	16.875	0.485
7				15.160	14.750	0.410	17.070	16.687	0.378	17.360	16.875	0.485
8	14.910	14.500	0.410	15.230	14.750	0.480	17.070	16.562	0.508			
9	14.900	14.500	0.400	15.230	14.812	0.418	17.000	16.562	0.438	17.360	16.875	0.485
10	14.900	14.500	0.400	15.230	14.875	0.355	17.000	16.562	0.438	17.360	16.812	0.548
11	14.900	14.500	0.400							17.360	16.812	0.548
12	14.900	14.500	0.400	15.230			17.000	16.562	0.438	17.360	16.750	0.610
13	14.900	14.500	0.400	15.230	14.937	0.293	17.000	16.625	0.375	17.360	16.650	0.710
14				15.320	15.000	0.320	17.000	16.687	0.313	17.110	16.650	0.460
15	14.900	14.437	0.463	15.330	15.125	0.205	17.000	16.750	0.250			
16	14.900	14.375	0.525	15.520	15.312	0.208	77.001	16.750	0.251	17.110	16.625	0.485
17	14.900	14.375	0.525	15.732	15.562	0.170	17.225	16.875	0.350	17.110	16.625	0.485
18	14.900	14.375	0.525							16.980	16.687	0.293
19	14.900	14.400	0.500	15.910	15.687	0.223	17.270	17.000	0.270	16.980	16.625	0.355
20	14.900	14.437	0.463	16.005	15.750	0.255	17.355	17.000	0.355	16.980	16.625	0.355
21				16.005	15.812	0.193	17.380	17.062	0.318	16.980	16.625	0.355
22	14.920	14.700	0.220	16.050			17.380	17.125	0.255			
23	14.920	14.500	0.420	16.345	16.125	0.220	17.380	17.100	0.280	16.980	16.562	0.418
24	14.900	14.500	0.400	16.520	16.250	0.270	17.380	17.062	0.318	16.980	16.500	0.480
25	14.900	14.500	0.400							16.980	16.500	0.480
26	14.930	14.625	0.305	16.745	16.375	0.370	17.380	16.937	0.443	16.980	16.400	0.580
27	15.060	14.625	0.435	16.790	16.437	0.353	17.410	16.937	0.473	16.980	16.300	0.680
28				16.860	16.500	0.360	17.410	16.937	0.473	16.980	16.350	0.630
29	15.080	14.750	0.330				17.410	17.000	0.410			
30	15.080	14.750	0.330				17.410	17.000	0.410	16.980	16.350	0.630
31	15.150	14.750	0.400				17.390	17.000	0.390	16.980		

1923	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign	1 Foreign	2 Domestic	3 Excess foreign
	May			June			July			August		
1	16.720¢	16.250¢	0.470¢	15.260¢	14.562¢	0.698¢				14.830¢	14.250¢	0.580¢
2	16.720	16.187	0.533	15.230	14.562	0.668	15.010¢	14.250¢	0.760¢	14.830	14.100	0.730
3	16.720	16.187	0.533				15.010	14.150	0.860	14.730	14.100	0.630
4	16.720	16.125	0.595	15.230	14.687	0.543	15.010			14.640	14.062	0.578
5	16.720	16.125	0.595	15.230	14.687	0.543	15.010	14.187	0.823			
5				16.225	14.687	0.538	15.010	14.125	0.885	14.640	14.062	0.578
7	16.680	16.125	0.555	16.225	14.750	0.475	15.010	14.125	0.885	14.610	14.062	0.548
8	16.520	16.062	0.458	15.230	14.750	0.480				14.610	14.062	0.548
9	16.520	16.000	0.520	15.230	14.750	0.480	15.010	14.125	0.885	14.520	14.000	0.520
10	16.410	15.750	0.660				15.010	14.187	0.823	14.520		
11	16.410	15.750	0.660	15.230	14.750	0.480	14.930	14.375	0.555	14.460	13.937	00.523
12	16.240	15.687	0.553	15.360	14.800	0.560	14.980	14.500	0.480			
13				15.415	14.875	0.540	14.980	14.500	0.480	14.460	13.875	0.585
14	16.210	15.500	0.710	15.460	14.875	0.585	14.980	14.500	0.480	14.360	13.812	0.548
15	16.210	15.172	0.038	15.480	14.875	0.605				14.360	13.750	0.610
16	16.000	15.000	1.000	15.460	14.875	0.585	14.980	14.437	0.543	14.320	13.737	0.583
17	16.000	15.062	0.938				14.980	14.437	0.543	14.270	13.725	0.545
18	16.000	15.172	0.828	15.460	14.837	0.623	14.920	14.312	0.608	14.250	13.725	0.525
19	15.950	15.250	0.700	15.460	14.812	0.648	14.870	14.312	0.558			
20				15.330	14.812	0.518	14.880	14.425	0.455	14.230	13.725	0.505
21	15.930	15.250	0.680	15.330	14.750	0.580	14.900	14.437	0.463	14.220	13.750	0.470
22	15.890	15.250	0.640	15.230	14.687	0.543				14.230	13.750	0.480
23	15.890	15.187	0.703	15.240	14.687	0.553	14.900	14.375	0.525	14.260	13.750	0.510
24	15.730	15.000	0.730				14.920	14.375	0.545	14.260	13.750	0.510
25	15.730	14.812	0.918	15.240	14.562	0.678	14.920	14.375	0.545	14.265	13.750	0.515
26	15.570	14.750	0.820	15.180	14.437	0.743	14.895	14.312	0.583			
27				15.040	14.375	0.665	14.895	14.312	0.583	14.250	13.687	0.563
28	15.570	14.625	0.945	15.040	14.250	0.790	14.880	41.312	0.568	14.220	13.687	0.533
29	15.260	14.500	0.760	15.040	14.250	0.790				14.200	13.562	0.638
30	15.260			15.010	14.250	0.760	14.880	14.312	0.568	14.200	13.375	0.825
31	15.260	14.500	0.760				14.880	14.250	0.630	13.990	13.375	0.615

Comparison of domestic prices and foreign prices of Copper Export Association, 1919–1924—Continued

1923	September 1 Foreign	September 2 Domestic	September 3 Excess foreign	October 1 Foreign	October 2 Domestic	October 3 Excess foreign	November 1 Foreign	November 2 Domestic	November 3 Excess foreign	December 1 Foreign	December 2 Domestic	December 3 Excess foreign
1	14.020¢	13.375¢	0.645¢	13.740¢	13.000¢	0.740¢	12.770¢	12.312¢	0.458¢	13.280¢	12.875¢	0.405¢
2	--------	--------	--------	13.740	13.000	0.740	12.830	12.375	0.455	--------	--------	--------
3	14.020	--------	--------	13.660	12.937	0.723	12.860	12.375	0.485	13.280	12.875	0.405
4	13.930	13.437	0.493	13.460	12.812	0.648	--------	--------	--------	13.285	12.875	0.410
5	13.950	13.500	0.450	13.380	12.750	0.630	12.860	12.375	0.485	13.285	12.875	0.410
6	14.030	13.500	0.530	13.373	12.750	0.623	12.865	--------	--------	13.285	12.875	0.410
7	14.030	13.500	0.530	--------	--------	--------	12.925	12.437	0.488	13.285	12.875	0.410
8	13.980	13.500	0.480	13.380	12.750	0.630	13.055	12.562	0.493	13.275	12.875	0.400
9	--------	--------	--------	13.390	12.750	0.640	13.125	12.687	0.438	--------	--------	--------
10	13.970	13.500	0.470	13.390	12.562	0.828	13.215	12.875	0.340	13.305	12.900	0.405
11	13.960	13.500	0.460	13.270	12.500	0.770	--------	--------	--------	13.315	12.900	0.415
12	13.980	13.500	0.480	13.170	--------	--------	13.358	13.000	0.358	13.300	12.900	0.400
13	13.980	13.437	0.543	13.030	12.500	0.530	13.450	13.125	0.325	13.290	12.850	0.440
14	13.940	13.375	0.565	--------	--------	--------	13.560	13.187	0.373	13.290	12.875	0.415
15	13.875	13.312	0.563	13.080	12.625	0.455	13.565	13.062	0.503	13.305	12.875	0.430
16	13.875	13.250	0.625	13.100	12.625	0.475	13.565	12.875	0.690	--------	--------	--------
17	13.865	13.187	0.678	13.075	12.625	0.450	13.565	12.812	0.753	13.305	12.875	0.430
18	13.830	13.062	0.768	13.080	12.625	0.455	--------	--------	--------	13.283	12.875	0.408
19	--------	--------	--------	13.080	12.625	0.455	13.565	12.750	0.815	13.240	12.812	0.428
20	13.850	13.125	0.725	13.040	12.562	0.478	13.565	12.750	0.815	13.240	12.812	0.428
21	13.663	13.187	0.476	--------	--------	--------	13.565	12.750	0.815	13.230	12.750	0.480
22	13.725	13.187	0.538	13.030	12.550	0.480	13.565	12.625	0.940	13.230	12.750	0.480
23	--------	--------	--------	13.960	12.437	1.523	13.565	12.625	0.940	--------	--------	--------
24	13.725	13.250	0.475	13.960	12.375	1.585	13.565	12.625	0.940	13.230	12.750	0.480
25	13.720	13.250	0.470	13.830	12.187	1.643	--------	--------	--------	--------	--------	--------
26	13.775	13.250	0.520	13.680	12.250	1.430	13.420	12.700	0.720	13.220	12.750	0.470
27	13.775	13.250	0.525	13.680	12.250	1.430	13.255	12.800	0.455	13.200	12.750	0.450
28	13.740	13.187	0.553	--------	--------	--------	13.320	12.875	0.445	13.200	12.737	0.463
29	13.740	13.125	0.615	12.710	12.250	0.460	13.340	--------	--------	13.200	12.737	0.463
30	--------	--------	--------	12.710	12.312	0.398	13.280	12.875	0.405	--------	--------	--------
31	--------	--------	--------	12.710	12.312	0.398	--------	--------	--------	13.200	12.650	0.550

1924	January 1 Foreign	January 2 Domestic	January 3 Excess foreign
1	--------	--------	--------
2	13.200¢	12.625¢	0.575¢
3	13.100	12.625	0.475
4	13.030	12.625	0.405
5	13.020	12.562	0.458
6	--------	--------	--------
7	12.940	12.562	0.378
8	12.920	12.500	0.420
9	12.920	12.375	0.545
10	12.880	12.250	0.630
11	12.880	12.250	0.630
12	12.850	12.250	0.600
13	--------	--------	--------
14	12.750	12.287	0.463
15	12.680	12.200	0.680
16	12.680	12.187	0.493
17	12.670	12.200	0.470
18	12.680	12.250	0.430
19	12.690	12.250	0.440
20	--------	--------	--------
21	12.720	12.312	0.408
22	12.770	12.437	0.333
23	12.810	12.500	0.310
24	12.810	12.500	0.310
25	12.845	12.500	0.345
26	12.845	12.500	0.345
27	--------	--------	--------
28	12.915	12.437	0.478
29	12.890	12.437	0.453
30	12.860	12.437	0.423
31	12.830	12.375	0.455

Prepared by R. R. Eckert, former manager of Copper Export Association, Inc.

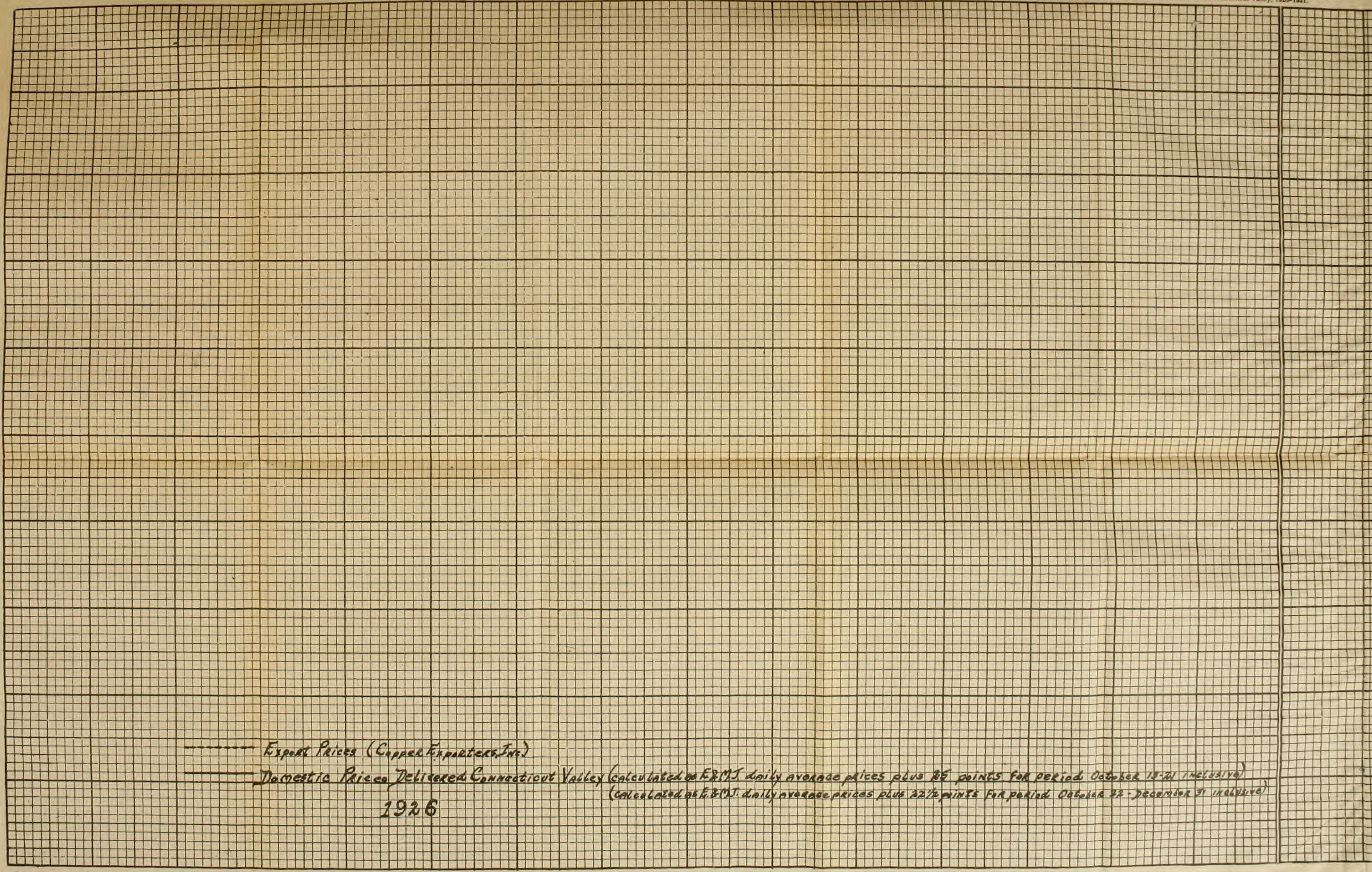
(Chart based on following statistical data faces this page.)

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931

[Column 1=Copper Exporters, Inc., price CIF Base ports; Column 2=E. & M. J. Domestic price FOB Refinery; Column 3=Excess Column 1 over Column 2]

	1	2	3	1	2	3	1	2	3	1	2	3
	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign
1926	September			October			November			December		
1	-------	-------	-------	-------	-------	-------	14.400¢	13.675¢	0.725¢	13.950¢	13.325¢	0.625¢
2	-------	-------	-------	-------	-------	-------	14.400	Holiday	-------	13.950	13.275	0.675
3	-------	-------	-------	-------	-------	-------	14.400	13.725	0.675	13.950	13.275	0.675
4	-------	-------	-------	-------	-------	-------	14.250	13.650	0.600	13.950	13.275	0.675
5	-------	-------	-------	-------	-------	-------	14.250	13.625	0.625	-------	-------	-------
6	-------	-------	-------	-------	-------	-------	14.250	13.650	0.600	13.950	13.275	0.675
7	-------	-------	-------	-------	-------	-------	-------	-------	-------	13.950	13.350	0.600
8	-------	-------	-------	-------	-------	-------	14.250	13.575	0.675	13.950	13.375	0.575
9	-------	-------	-------	-------	-------	-------	14.250	13.600	0.650	13.950	13.400	0.550
10	-------	-------	-------	-------	-------	-------	14.250	13.613	0.637	13.950	13.400	0.550
11	-------	-------	-------	-------	-------	-------	14.275	13.650	0.625	13.950	13.400	0.550
12	-------	-------	-------	-------	-------	-------	14.275	13.650	0.625	-------	-------	-------
13	-------	-------	-------	14.400¢	13.900¢	0.500¢	14.275	13.650	0.625	13.950	13.400	0.550
14	-------	-------	-------	14.400	13.950	0.450	-------	-------	-------	13.950	13.375	0.575
15	-------	-------	-------	14.400	13.950	0.450	14.275	13.650	0.625	13.950	13.350	0.600
16	-------	-------	-------	14.400	13.900	0.500	14.275	13.650	0.625	13.950	13.375	0.575
17	-------	-------	-------	-------	-------	-------	14.275	13.650	0.625	13.950	13.375	0.575
18	-------	-------	-------	14.400	13.900	0.500	14.275	13.575	0.700	13.950	13.363	0.587
19	-------	-------	-------	14.400	13.900	0.500	14.275	13.550	0.725	-------	-------	-------
20	-------	-------	-------	14.400	13.900	0.500	14.125	13.550	0.575	13.950	13.375	0.575
21	-------	-------	-------	14.400	13.825	0.575	-------	-------	-------	13.950	13.350	0.600
22	-------	-------	-------	14.400	13.825	0.575	14.125	13.525	0.700	13.950	13.300	0.650
23	-------	-------	-------	14.400	13.775	0.625	14.125	13.475	0.650	13.950	13.275	0.675
24	-------	-------	-------	-------	-------	-------	14.125	13.475	0.650	13.950	13.275	0.675
25	-------	-------	-------	14.400	13.775	0.625	14.125	Holiday	-------	-------	Holiday	-------
26	-------	-------	-------	14.400	13.775	0.625	14.125	13.425	0.700	-------	-------	-------
27	-------	-------	-------	14.400	13.750	0.650	14.125	13.450	0.675	13.950	13.275	0.675
28	-------	-------	-------	14.400	13.775	0.625	-------	-------	-------	13.950	13.200	0.750
29	-------	-------	-------	14.400	13.775	0.625	14.125	13.400	0.725	13.850	13.175	0.675
30	-------	-------	-------	14.400	13.775	0.625	13.950	13.375	0.575	13.850	13.025	0.825
31	-------	-------	-------	-------	-------	-------	-------	-------	-------	13.850	13.025	0.825
1927	January			February			March			April		
1	-------	-------	-------	13.500¢	12.750¢	0.750¢	13.650¢	13.150¢	0.500¢	13.500¢	12.913¢	0.587
2	-------	-------	-------	13.250	12.763	0.487	13.650	13.150	0.500	13.500	12.913	0.587
3	13.850¢	13.025¢	0.825¢	13.250	12.525	0.725	13.650	13.175	0.475	-------	-------	-------
4	13.850	12.900	0.950	13.250	12.400	0.850	13.650	13.175	0.475	13.500	12.900	0.600
5	13.500	12.900	0.600	13.125	12.363	0.762	13.650	13.150	0.500	13.500	12.838	0.662
6	13.500	12.900	0.600	-------	-------	-------	-------	-------	-------	13.500	12.800	0.700
7	13.500	12.875	0.625	13.125	12.300	0.825	13.650	13.150	0.500	13.500	12.775	0.725
8	13.500	12.900	0.600	13.000	12.300	0.700	13.650	13.150	0.500	13.500	12.775	0.725
9	-------	-------	-------	13.000	12.400	0.600	13.650	13.138	0.512	13.500	12.775	0.725
10	13.500	12.950	0.550	13.125	12.550	0.575	13.650	13.150	0.500	-------	-------	-------
11	13.500	13.025	0.475	13.250	12.625	0.625	13.650	13.100	0.550	13.500	12.775	0.725
12	13.500	13.025	0.475	13.250	Holiday	-------	13.650	13.100	0.550	13.350	12.775	0.575
13	13.500	13.050	0.450	-------	-------	-------	-------	-------	-------	13.350	12.775	0.575
14	13.625	13.100	0.525	13.250	12.750	0.500	13.650	13.075	0.575	13.350	12.775	0.575
15	13.625	13.125	0.500	13.375	12.700	0.675	13.650	13.075	0.575	13.350	12.775	0.575
16	-------	-------	-------	13.375	12.700	0.675	13.650	13.075	0.575	13.350	12.788	0.562
17	13.625	13.100	0.525	13.375	12.775	0.600	13.650	13.113	0.537	-------	-------	-------
18	13.625	13.025	0.600	13.375	12.775	0.600	13.650	13.113	0.537	13.350	12.788	0.562
19	13.625	13.025	0.600	13.375	12.775	0.600	13.650	13.113	0.537	13.350	12.875	0.475
20	13.625	13.025	0.600	-------	-------	-------	-------	-------	-------	13.500	12.900	0.600
21	13.625	13.025	0.600	13.375	12.775	0.600	13.650	13.113	0.537	13.500	12.900	0.600
22	13.625	13.025	0.600	13.375	Holiday	-------	13.650	13.075	0.575	13.500	12.800	0.700
23	-------	-------	-------	13.450	12.900	0.550	13.650	13.025	0.625	13.500	12.800	0.700
24	13.625	13.025	0.600	13.450	12.900	0.550	13.650	13.050	0.600	-------	-------	-------
25	13.625	13.000	0.625	13.550	12.975	0.575	13.650	13.075	0.575	13.500	12.775	0.725
26	13.625	13.000	0.625	13.550	12.975	0.575	13.650	13.075	0.575	13.500	12.775	0.725
27	13.625	13.000	0.625	-------	-------	-------	-------	-------	-------	13.350	12.763	0.587
28	13.625	13.000	0.625	13.550	13.025	0.525	13.650	12.875	0.776	13.350	12.750	0.600
29	13.500	12.925	0.575	-------	-------	-------	13.650	12.900	0.750	13.350	12.750	0.600
30	-------	-------	-------	-------	-------	-------	13.500	12.900	0.600	13.350	12.775	0.575
31	13.500	12.800	0.700	-------	-------	-------	13.500	12.900	0.600	-------	-------	-------

Electrolytic copper, daily export prices of Copper Exporters, Inc., and domestic daily average price, delivered Connecticut Valley, 1926–1931.



Source: Prepared by R. R. Eckert, former Manager, Copper Exporters, Inc.
Domestic price based upon figures in Engineering and Mining Journal, f.o.b. New York, plus 22½¢

(Face p. 13518)

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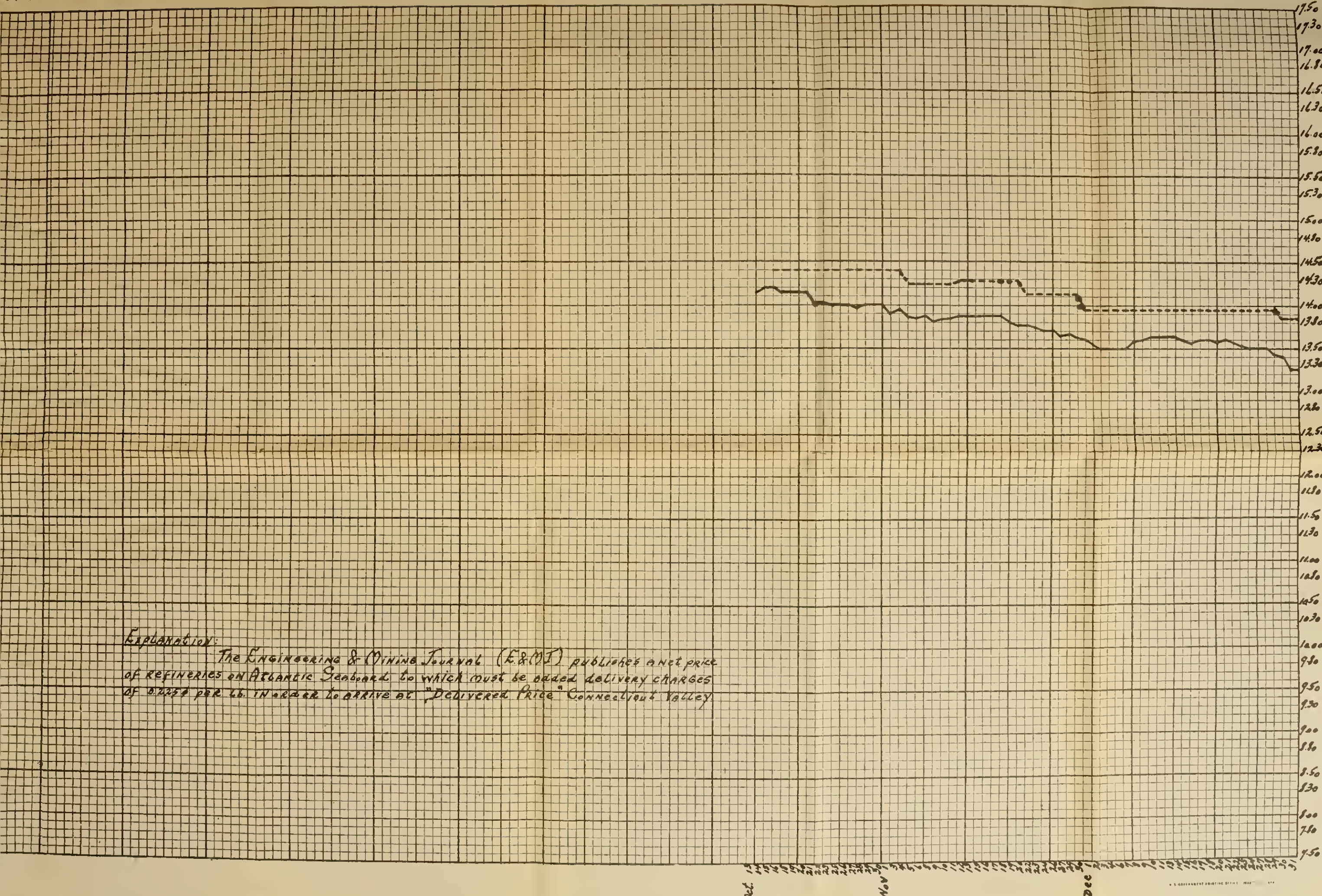

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Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

1927	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
	May			June			July			August		
1	--------	--------	-------	13.000¢	12.500¢	0.500¢	913.000¢	12.225¢	0.775¢	13.375¢	12.975¢	0.400¢
2	13.350¢	12.775¢	0.575¢	13.000	12.500	0.500	13.000	12.225	0.775	13.500	13.089	0.412
3	13.350	12.750	0.600	13.100	12.550	0.550	--------	--------	-------	13.650	13.120	0.530
4	13.350	12.750	0.600	13.100	12.550	0.550	13.000	Holiday	-------	13.650	13.113	0.537
5	13.350	12.775	0.575	--------	--------	-------	13.000	12.200	0.800	13.650	13.113	0.537
6	13.350	12.775	0.575	13.100	12.550	0.550	13.000	12.275	0.725	13.650	13.113	0.537
7	13.350	12.775	0.575	13.100	12.525	0.575	13.000	12.300	0.700	--------	--------	-------
8	--------	--------	-------	13.100	12.475	0.625	13.000	12.400	0.600	13.650	13.025	0.625
9	13.350	12.775	0.575	13.100	12.500	0.600	13.000	12.400	0.600	13.650	13.050	0.600
10	13.350	12.775	0.575	13.100	12.475	0.625	--------	--------	-------	13.650	13.050	0.600
11	13.350	12.775	0.575	13.100	12.425	0.675	13.000	12.400	0.600	13.650	13.025	0.625
12	13.350	12.775	0.575	--------	--------	-------	13.000	12.363	0.637	13.650	13.025	0.625
13	13.350	12.750	0.600	13.100	12.300	0.800	13.000	12.375	0.625	13.650	13.000	0.650
14	13.350	12.750	0.600	13.100	12.275	0.825	13.000	12.413	0.587	--------	--------	-------
15	--------	--------	-------	13.100	12.275	0.825	13.000	12.413	0.587	13.650	12.925	0.725
16	13.350	12.750	0.600	13.100	12.275	0.825	13.000	12.463	0.537	13.650	12.875	0.775
17	13.350	12.700	0.650	13.100	12.275	0.825	--------	--------	-------	13.650	12.875	0.775
18	13.350	12.675	0.675	13.100	12.275	0.825	13.000	12.463	0.537	13.650	12.875	0.775
19	13.350	12.650	0.700	--------	--------	-------	13.000	12.538	0.462	13.650	12.875	0.775
20	13.350	12.550	0.800	13.100	12.225	0.875	13.000	12.625	0.375	13.650	12.875	0.775
21	13.200	12.425	0.775	13.000	12.275	0.725	13.150	12.713	0.437	--------	--------	-------
22	--------	--------	-------	13.000	12.275	0.725	13.150	12.750	0.400	13.650	12.875	0.775
23	13.200	12.400	0.800	13.000	12.275	0.725	13.150	12.788	0.362	13.650	12.875	0.775
24	13.200	12.400	0.800	13.000	12.400	0.600	--------	--------	-------	13.500	12.838	0.662
25	13.000	12.300	0.700	13.000	12.400	0.600	13.250	12.775	0.475	13.500	12.838	0.662
26	13.000	12.300	0.700	--------	--------	-------	13.250	12.788	0.462	13.500	12.888	0.612
27	13.000	12.375	0.825	13.000	12.275	0.725	13.250	12.775	0.475	13.500	12.950	0.550
28	13.000	12.400	0.600	13.000	12.275	0.725	13.250	12.825	0.425	--------	--------	-------
29	--------	--------	-------	13.000	12.275	0.725	13.250	12.900	0.350	13.500	12.463	1.037
30	13.000	Holiday	-------	13.000	12.225	0.775	13.375	12.900	0.475	13.500	13.013	0.487
31	13.000	12.400	0.600	--------	--------	-------	--------	--------	-------	13.500	12.950	0.550

1927	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
	September			October			November			December		
1	13.500¢	12.925¢	0.575¢	13.500¢	12.775¢	0.725¢	13.600¢	13.025¢	0.575¢	14.150¢	13.588¢	0.562¢
2	13.500	12.925	0.575	--------	--------	-------	13.700	13.050	0.650	14.250	13.713	0.537
3	13.500	12.900	0.600	13.500	12.863	0.637	13.700	13.088	0.612	14.250	13.750	0.500
4	--------	--------	-------	13.500	12.900	0.600	13.700	13.150	0.550	--------	--------	-------
5	13.500	Holiday	-------	13.500	12.975	0.525	13.700	13.150	0.550	14.350	13.775	0.575
6	13.500	12.975	0.525	13.500	12.900	0.600	--------	--------	-------	14.350	13.825	0.525
7	13.500	12.925	0.575	13.500	12.900	0.600	13.700	13.150	0.550	14.500	13.875	0.625
8	13.500	12.975	0.525	13.500	12.950	0.550	13.800	Holiday	-------	14.500	13.913	0.587
9	13.500	13.000	0.500	--------	--------	-------	13.800	13.175	0.625	14.500	13.900	0.600
10	13.500	13.000	0.500	13.500	12.950	0.550	13.800	13.175	0.625	14.500	13.850	0.650
11	--------	--------	-------	13.500	12.950	0.550	13.800	13.175	0.625	--------	--------	-------
12	13.500	12.875	0.675	13.500	Holiday	-------	13.800	13.200	0.600	14.500	13.850	0.650
13	13.500	12.950	0.550	13.500	13.025	0.475	--------	--------	-------	14.500	13.850	0.650
14	13.500	13.000	0.500	13.500	13.025	0.475	13.800	13.250	0.550	14.500	13.775	0.725
15	13.500	13.025	0.475	13.600	13.025	0.575	13.800	13.275	0.525	14.500	13.850	0.650
16	13.500	13.025	0.475	--------	--------	-------	13.800	13.275	0.525	14.500	13.775	0.725
17	13.500	13.025	0.475	13.600	13.038	0.562	13.950	13.400	0.550	14.500	13.650	0.850
18	--------	--------	-------	13.600	13.025	0.575	13.950	13.413	0.537	--------	--------	-------
19	13.500	13.025	0.475	13.600	13.000	0.600	13.950	13.413	0.537	14.500	13.600	0.900
20	13.500	13.000	0.500	13.600	12.950	0.650	--------	--------	-------	14.500	13.675	0.825
21	13.500	13.000	0.500	13.600	12.900	0.700	14.050	13.500	0.550	14.500	13.650	0.850
22	13.500	12.988	0.512	13.600	12.925	0.675	14.050	13.500	0.550	14.500	13.675	0.825
23	13.500	12.950	0.550	--------	--------	-------	14.050	13.525	0.525	14.500	13.805	0.650
24	13.500	12.950	0.550	13.600	12.938	0.662	14.050	Holiday	-------	14.500	13.800	0.700
25	--------	--------	-------	13.600	12.938	0.662	14.050	13.525	0.525	--------	--------	-------
26	13.500	12.950	0.550	13.600	12.938	0.662	14.050	13.550	0.500	14.500	Holiday	-------
27	13.500	12.800	0.700	13.600	13.000	0.600	--------	--------	-------	14.500	13.800	0.700
28	13.500	12.775	0.725	13.600	13.025	0.575	14.050	13.525	0.525	14.500	13.775	0.725
29	13.500	12.750	0.750	13.600	13.025	0.575	14.050	13.525	0.525	14.500	13.788	0.712
30	13.500	12.775	0.725	13.600	13.000	0.600	14.150	13.650	0.500	14.500	13.788	0.712
31	--------	--------	-------	--------	--------	-------	--------	--------	-------	14.500	13.788	0.712

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
1928	January			February			March			April		
1				14.500¢	13.900¢	0.600¢	14.500¢	13.700¢	0.800¢			
2		Holiday		14.500	13.888	0.612	14.500	13.675	0.825	14.500¢	14.000¢	0.500¢
3	14.500¢	13.863¢	0.637¢	14.500	13.888	0.612	14.500	13.700	0.800	14.500	14.000	0.500
4	14.500	13.888	0.612	14.500	13.888	0.612				14.500	14.000	0.500
5	14.500	13.900	0.600				14.500	13.725	0.775	14.500	14.050	0.450
6	14.500	13.900	0.600	14.500	13.888	0.612	14.500	13.838	0.662	14.500	13.963	0.537
7	14.500	13.900	0.600	14.500	13.850	0.650	14.500	13.875	0.625	14.500	13.963	0.537
8				14.500	13.850	0.650	14.500	13.913	0.587			
9	14.500	13.900	0.600	14.500	13.875	0.625	14.500	13.888	0.612	14.500	13.963	0.537
10	14.500	13.875	0.625	14.500	13.875	0.625	14.500	13.888	0.612	14.500	13.925	0.575
11	14.500	13.863	0.637	14.500	13.825	0.675				14.500	13.963	0.537
12	14.500	13.800	0.700				14.500	13.875	0.625	14.500	13.963	0.537
13	14.500	13.788	0.712	14.500	Holiday		14.500	13.825	0.675	14.500	13.975	0.525
14	14.500	13.788	0.712	14.500	13.850	0.650	14.500	13.825	0.675	14.500	13.975	0.525
15				14.500	13.825	0.675	14.500	13.775	0.725			
16	14.500	13.788	0.712	14.500	13.825	0.675	14.500	13.788	0.712	14.500	13.975	0.525
17	14.500	13.788	0.712	14.500	13.825	0.675	14.500	13.838	0.662	14.500	13.988	0.512
18	14.500	13.775	0.725	14.500	13.825	0.675				14.500	13.988	0.512
19	14.500	13.825	0.675				14.500	13.838	0.662	14.500	13.963	0.537
20	14.500	13.825	0.675	14.500	13.775	0.725	14.500	13.813	0.687	14.500	13.975	0.525
21	14.500	13.825	0.675	14.500	13.775	0.725	14.500	13.788	0.712	14.500	13.975	0.525
22				14.500	Holiday		14.500	13.875	0.625			
23	14.500	13.825	0.675	14.500	13.763	0.737	14.500	13.900	0.600	14.500	14.000	0.500
24	14.500	13.900	0.600	14.500	13.775	0.725	14.500	13.900	0.600	14.500	14.000	0.500
25	14.500	13.900	0.600	14.500	13.800	0.700				14.500	14.000	0.500
26	14.500	13.888	0.612				14.500	13.875	0.625	14.500	13.988	0.512
27	14.500	13.888	0.612	14.500	13.750	0.750	14.500	13.900	0.600	14.500	14.013	0.487
28	14.500	13.888	0.612	14.500	13.700	0.800	14.500	13.900	0.600	14.500	14.013	0.487
29				14.500	13.725	0.775	14.500	13.950	0.550			
30	14.500	13.888	0.612				14.500	13.975	0.525	14.500	14.025	0.475
31	14.500	13.875	0.625				14.500	13.975	0.525			
	May			June			July			August		
1	14.500¢	14.025¢	0.475¢	15.000¢	14.525¢	0.475¢				15.000¢	14.538¢	0.462¢
2	14.500	14.013	0.487	15.000	14.525	0.475	15.000¢	14.525¢	0.475¢	15.000	14.525	0.475
3	14.500	14.013	0.487				15.000	14.525	0.475	15.000	14.525	0.475
4	14.500	14.038	0.462	15.000	14.525	0.475	15.000	Holiday		15.000	14.525	0.475
5	14.500	14.038	0.462	15.000	14.525	0.475	15.000	14.538	0.462			
6				15.000	14.525	0.475	15.000	14.538	0.462	15.000	14.525	0.475
7	14.500	14.013	0.487	15.000	14.538	0.462	15.000	14.525	0.475	15.000	14.525	0.475
8	14.500	14.013	0.487	15.000	14.525	0.475				15.000	14.525	0.475
9	14.500	14.038	0.462	15.000	14.525	0.475	15.000	14.538	0.462	15.000	14.525	0.475
10	14.500	14.013	0.487				15.000	14.525	0.475	15.000	14.513	0.487
11	14.500	14.025	0.475	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
12	14.500	14.025	0.475	15.000	14.525	0.475	15.000	14.525	0.475			
13				15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
14	14.500	14.088	0.412	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.538	0.462
15	14.625	14.163	0.462	15.000	14.525	0.475				15.000	14.538	0.462
16	14.625	14.163	0.462	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
17	14.625	14.213	0.412				15.000	14.525	0.475	15.000	14.525	0.475
18	14.750	14.275	0.475	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
19	14.750	14.275	0.475	15.000	14.538	0.462	15.000	14.525	0.475			
20				15.000	14.550	0.450	15.000	14.538	0.462	15.000	14.525	0.475
21	14.750	14.275	0.475	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
22	14.750	14.275	0.475	15.000	14.525	0.475				15.000	14.525	0.475
23	14.750	14.338	0.412	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
24	14.750	14.338	0.412				15.000	14.525	0.475	15.000	14.525	0.475
25	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
26	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475			
27				15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.513	0.487
28	15.000	14.538	0.462	15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.538	0.462
29	15.000	14.525	0.475	15.000	14.525	0.475				15.000	14.525	0.475
30	15.000	Holiday		15.000	14.525	0.475	15.000	14.525	0.475	15.000	14.525	0.475
31	15.000	14.525	0.475				15.000	14.525	0.475	15.000	14.525	0.475

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

1928	September 1 Foreign	September 2 Domestic	September 3 Excess Foreign	October 1 Foreign	October 2 Domestic	October 3 Excess Foreign	November 1 Foreign	November 2 Domestic	November 3 Excess Foreign	December 1 Foreign	December 2 Domestic	December 3 Excess Foreign
1	15.000¢	14.525¢	0.475¢	15.500¢	15.025¢	0.475¢	16.250¢	15.775¢	0.475¢	16.250¢	15.775¢	0.475¢
2	--------	--------	--------	15.500	15.025	0.475	16.250	15.775	0.475	--------	--------	--------
3	15.000	Holiday	--------	15.500	15.025	0.475	16.250	15.775	0.475	16.250	15.775	0.475
4	15.000	14.525	0.475	15.500	15.025	0.475	--------	--------	--------	16.250	15.775	0.475
5	15.000	14.525	0.475	15.500	15.025	0.475	16.250	15.775	0.475	16.250	16.775	0.475
6	15.000	14.525	0.475	15.500	15.025	0.475	16.250	Holiday	--------	16.250	15.775	0.475
7	15.000	14.538	0.462	--------	--------	--------	16.250	15.775	0.475	16.250	15.775	0.475
8	15.000	14.513	0.487	15.500	15.025	0.475	16.250	15.775	0.475	16.250	15.775	0.475
9	--------	--------	--------	15.500	15.025	0.475	16.250	15.775	0.475	--------	--------	--------
10	15.000	14.525	0.475	15.500	15.025	0.475	16.250	15.775	00.475	16.250	15.775	0.475
11	15.000	14.525	0.475	15.500	15.025	0.475	--------	--------	--------	16.250	15.775	0.475
12	15.000	14.525	0.475	15.500	Holiday	--------	16.250	15.775	0.475	16.250	15.775	0.475
13	15.000	14.525	0.475	15.500	15.025	0.475	16.250	15.775	1.475	16.250	15.775	0.475
14	15.000	14.525	0.475	--------	--------	--------	16.250	15.775	0.475	16.250	15.775	0.475
15	15.250	14.625	0.625	15.500	15.025	0.475	16.250	15.775	0.475	16.250	15.775	0.475
16	--------	--------	--------	15.500	15.025	0.475	16.250	15.800	0.450	--------	--------	--------
17	15.250	14.775	0.475	15.500	15.025	0.475	16.250	15.775	0.475	16.250	15.775	0.475
18	15.250	14.775	0.475	15.500	15.025	0.475	--------	--------	--------	16.250	15.775	0.475
19	15.250	14.775	0.475	15.500	15.025	0.475	16.250	15.825	0.425	16.250	15.775	0.475
20	15.250	14.775	0.475	15.500	15.250	0.250	16.250	15.775	0.475	16.250	15.775	0.475
21	15.250	14.900	0.350	--------	--------	--------	16.250	15.775	0.475	16.250	15.775	0.475
22	15.250	14.838	0.412	15.500	15.275	0.225	16.250	15.775	0.475	16.250	15.775	0.475
23	--------	--------	--------	15.750	15.275	0.475	16.250	15.775	0.475	--------	--------	--------
24	15.500	14.025	0.475	14.750	15.275	0.475	16.250	15.775	0.475	16.250	15.800	0.450
25	15.500	15.025	0.475	15.750	15.525	0.225	--------	--------	--------	16.250	Holiday	--------
26	15.500	15.025	0.475	16.000	15.525	0.475	16.250	15.775	0.475	16.250	16.025	0.225
27	15.500	15.025	0.475	16.000	15.525	0.475	16.250	15.775	0.475	16.500	16.025	0.475
28	15.500	15.025	0.475	--------	--------	--------	16.250	15.775	0.475	16.500	16.025	0.475
29	15.500	15.025	0.475	16.000	15.650	0.350	16.250	Holiday	--------	16.500	16.225	0.275
30	--------	--------	--------	16.250	15.775	0.475	16.250	15.775	0.475	--------	--------	--------
31	--------	--------	--------	16.250	15.775	0.475	--------	--------	--------	16.750	16.275	0.475

1929	January 1 Foreign	January 2 Domestic	January 3 Excess Foreign	February 1 Foreign	February 2 Domestic	February 3 Excess Foreign	March 1 Foreign	March 2 Domestic	March 3 Excess Foreign	April 1 Foreign	April 2 Domestic	April 3 Excess Foreign
1	--------	Holiday	--------	17.250¢	16.775¢	0.475¢	19.500¢	19.275¢	0.225¢	24.375¢	23.775¢	0.600¢
2	16.750¢	16.500¢	0.250¢	17.500	17.025	0.475	19.750	19.275	0.475	24.375	23.775	0.600
3	17.000	16.525	0.475	--------	--------	--------	--------	--------	--------	24.375	23.775	0.600
4	17.000	16.525	0.475	17.500	17.025	0.475	19.750	19.275	0.475	24.375	23.775	0.600
5	17.000	16.525	0.475	17.750	17.275	0.475	19.750	19.275	0.475	24.375	22.900	1.475
6	--------	--------	--------	17.750	17.525	0.225	19.750	19.275	0.475	24.375	22.675	1.700
7	17.000	16.525	0.475	18.000	17.675	0.325	19.750	19.275	0.475	--------	--------	--------
8	17.000	16.525	0.475	18.250	17.775	0.475	19.750	19.275	0.475	24.375	21.525	2.850
9	17.000	16.525	0.475	18.250	17.775	0.475	19.750	19.275	0.475	22.250*	19.975	2.275
10	17.000	16.525	0.475	--------	--------	--------	--------	--------	--------	20.000*	19.025	0.975
11	17.000	16.525	0.475	18.250	17.775	0.475	19.750	19.275	0.475	20.000*	18.900	1.100
12	17.000	16.525	0.475	18.250	Holiday	--------	19.750	19.775	-0.025	19.625	19.025	0.600
13	--------	--------	--------	18.250	17.775	0.475	20.250	19.775	0.475	19.625	19.025	0.600
14	17.000	16.525	0.475	18.250	17.775	0.475	20.250	19.850	0.400	--------	--------	--------
15	17.000	16.525	0.475	18.250	17.775	0.475	20.750	20.275	0.475	19.625	17.775	1.850
16	17.000	16.525	0.475	18.250	17.775	0.475	21.250	20.775	0.475	18.300	17.775	0.525
17	17.000	16.525	0.475	--------	--------	--------	--------	--------	--------	18.300	17.775	0.525
18	17.000	16.525	0.475	18.250	17.775	0.475	21.250	21.600	-0.350	18.300	17.775	0.525
19	17.000	16.525	0.475	18.250	17.775	0.475	22.250	21.775	0.475	18.300	17.775	0.525
20	--------	--------	--------	18.250	17.775	0.475	22.250	22.450	-0.200	18.300	17.775	0.525
21	17.000	16.625	0.575	18.250	17.775	0.475	23.375	22.775	0.600	--------	--------	--------
22	17.000	16.575	0.425	18.250	Holiday	--------	23.375	23.723	-0.350	18.300	17.775	0.525
23	17.250	16.775	0.475	18.250	17.775	0.475	24.375	23.775	0.600	18.300	17.775	0.525
24	17.250	16.775	0.475	--------	--------	--------	--------	--------	--------	18.300	17.775	0.525
25	17.250	16.775	0.475	18.250	17.975	0.275	24.375	23.775	0.600	18.300	17.775	0.525
26	17.250	16.775	0.475	18.500	18.175	0.325	24.375	23.775	0.600	18.300	17.775	0.525
27	--------	--------	--------	18.750	18.450	0.300	24.375	23.775	0.600	18.300	17.775	0.525
28	17.250	16.775	0.475	19.250	18.800	0.450	24.375	23.775	0.600	--------	--------	--------
29	17.250	16.775	0.475	--------	--------	--------	24.375	23.775	0.600	18.300	17.775	0.525
30	17.250	16.775	0.475	--------	--------	--------	24.375	23.775	0.600	13.300	17.775	0.525
31	17.250	16.775	0.475	--------	--------	--------	--------	--------	--------	--------	--------	--------

* Special sales.

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

1929	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
	May			June			July			August		
1	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢
2	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
3	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
4	18.300	17.775	0.525	18.300	17.775	0.525	18.300	Holiday	----	----	----	----
5	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
6	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
7	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
8	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
9	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
10	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
11	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
12	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
13	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
14	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
15	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
16	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
17	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
18	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
19	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
20	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
21	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
22	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
23	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
24	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
25	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
26	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
27	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
28	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
29	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
30	18.300	Holiday	----	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
31	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525

1929	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
	September			October			November			December		
1	----	----	----	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢	----	----	----
2	18.300¢	Holiday	----	18.300	17.775	0.525	18.300	17.775	0.525	18.300¢	17.775¢	0.525¢
3	18.300	17.775¢	0.525¢	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
4	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
5	18.300	17.775	0.525	18.300	17.775	0.525	18.300	Holiday	----	18.300	17.775	0.525
6	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
7	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
8	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
9	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
10	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
11	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
12	18.300	17.775	0.525	18.300	Holiday	----	18.300	17.775	0.525	18.300	17.775	0.525
13	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
14	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
15	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
16	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
17	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
18	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
19	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
20	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
21	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
22	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
23	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
24	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525
25	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	Holiday	0.525
26	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
27	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525
28	18.300	17.775	0.525	18.300	17.775	0.525	18.300	Holiday	----	18.300	17.775	0.525
29	----	----	----	18.300	17.775	0.525	18.300	17.775	0.525	----	----	----
30	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
31	----	----	----	18.300	17.775	0.525	----	----	----	18.300	17.775	0.525

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

1930	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
	January			February			March			April		
1	-------	Holiday	-------	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢	18.300¢	17.775¢	0.525¢
2	18.300¢	17.775¢	0.525¢	-------	-------	-------	-------	-------	-------	18.300	17.775	0.525
3	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
4	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
5	-------	-------	-------	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
6	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	-------	-------	-------
7	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
8	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
9	18.300	17.775	0.525	-------	-------	-------	-------	-------	-------	18.300	17.775	0.525
10	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
11	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
12	-------	-------	-------	18.300	Holiday	-------	18.300	17.775	0.525	18.300	17.775	0.525
13	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	-------	-------	-------
14	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525
15	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
16	18.300	17.775	0.525	-------	-------	-------	-------	-------	-------	14.300	13.775	0.525
17	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
18	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
19	-------	-------	-------	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
20	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	-------	-------
21	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
22	18.300	17.775	0.525	18.300	Holiday	-------	18.300	17.775	0.525	14.300	13.775	0.525
23	18.300	17.775	0.525	-------	-------	-------	-------	-------	-------	14.300	13.775	0.525
24	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
25	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
26	-------	-------	-------	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
27	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	-------	-------	-------
28	18.300	17.775	0.525	18.300	17.775	0.525	18.300	17.775	0.525	14.300	13.775	0.525
29	18.300	17.775	0.525	-------	-------	-------	18.300	17.775	0.525	14.300	13.775	0.525
30	18.300	17.775	0.525	-------	-------	-------	-------	-------	-------	14.300	13.775	0.525
31	18.300	17.775	0.525	-------	-------	-------	18.300	17.775	0.525	-------	-------	-------
	May			June			July			August		
1	14.300¢	13.775¢	0.525¢	-------	-------	-------	12.300¢	11.725¢	0.575¢	11.300¢	10.775¢	0.525¢
2	14.300	13.775	0.525	13.300¢	12.775¢	0.525¢	12.300	11.275	1.025	11.300	10.775	0.525
3	14.300	13.775	0.525	13.300	12.775	0.525	12.300	11.275	1.025	-------	-------	-------
4	-------	-------	-------	13.300	12.775	0.525	12.300	Holiday	-------	11.300	10.775	0.525
5	14.300	12.825	1.475	13.300	12.775	0.525	12.300	11.275	1.025	11.300	10.775	0.525
6	13.300	12.275	1.025	13.300	12.600	0.700	-------	-------	-------	11.300	10.775	0.525
7	13.300	12.075	1.025	13.300	12.600	0.700	12.300	11.275	1.025	11.300	10.775	0.525
8	12.800	12.150	0.650	-------	-------	-------	12.300	11.275	1.025	11.300	10.775	0.525
9	12.800	12.200	0.600	13.300	12.600	0.700	12.300	11.275	1.025	11.300	10.775	0.525
10	12.800	12.275	0.525	13.300	12.600	0.700	12.300	11.275	1.025	-------	-------	-------
11	-------	-------	-------	13.300	12.525	0.775	11.800	11.275	0.525	11.300	10.775	0.525
12	13.050	12.450	0.600	13.300	12.150	1.150	11.800	11.275	0.525	11.300	10.775	0.525
13	13.300	12.700	0.600	13.000	11.775	1.225	-------	-------	-------	11.300	10.525	0.775
14	13.300	12.750	0.550	12.550	11.725	0.775	11.800	11.275	0.525	11.300	10.650	0.650
15	13.300	12.550	0.750	-------	-------	-------	11.800	11.025	0.775	11.300	10.650	0.650
16	13.300	12.775	0.525	12.300	11.775	0.525	11.800	11.025	0.775	11.300	10.650	0.650
17	13.300	12.775	0.525	12.300	11.550	0.750	11.800	10.775	0.025	-------	-------	-------
18	-------	-------	-------	12.300	11.350	0.950	11.550	10.775	0.775	11.300	10.650	0.650
19	13.300	12.775	0.525	12.300	11.625	0.675	11.550	10.775	0.775	11.300	10.650	0.650
20	13.300	12.775	0.525	12.300	11.775	0.525	-------	-------	-------	11.300	10.650	0.650
21	13.300	12.775	0.525	12.300	11.775	0.525	11.550	10.775	0.775	11.300	10.650	0.650
22	13.300	12.775	0.525	-------	-------	-------	11.300	10.775	0.525	11.300	10.650	0.650
23	13.300	12.775	0.525	12.300	11.775	0.525	11.300	10.775	0.525	11.300	10.650	0.650
24	13.300	12.775	0.525	12.300	11.775	0.525	11.300	10.775	0.525	-------	-------	-------
25	-------	-------	-------	12.300	11.775	0.525	11.300	10.775	0.525	11.300	10.650	0.650
26	13.300	12.775	0.525	12.300	11.775	0.525	11.300	10.775	0.525	11.300	10.650	0.650
27	13.300	12.775	0.525	12.300	11.350	0.950	-------	-------	-------	11.300	10.650	0.650
28	13.300	12.775	0.525	12.300	11.550	0.750	11.300	10.775	0.525	11.300	10.650	0.650
29	13.300	12.775	0.525	-------	-------	-------	11.300	10.775	0.525	11.300	10.650	0.650
30	13.300	Holiday	-------	12.300	11.700	0.600	11.300	10.775	0.525	11.300	10.650	0.650
31	13.300	12.775	0.525	-------	-------	-------	11.300	10.775	0.525	-------	-------	-------

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

1930	September			October			November			December		
	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign	1 Foreign	2 Domestic	3 Excess Foreign
1	11.300¢	--------	--------	10.300¢	9.775¢	0.525¢	9.800¢	9.275¢	0.525¢	12.300¢	10.775¢	1.525¢
2	11.300	10.650¢	0.650¢	10.300	9.775	0.525	--------	--------	--------	12.300	11.275	1.025
3	11.300	10.650	0.650	10.300	9.775	0.525	9.800	9.275	0.525	12.300	11.025	1.275
4	11.300	10.650	0.650	10.300	9.775	0.525	9.800	Holiday	--------	12.300	11.150	1.150
5	11.300	10.650	0.650	--------	--------	--------	9.800	9.275	0.525	12.300	10.900	1.400
6	11.300	10.600	0.700	10.300	9.775	0.525	9.800	9.275	0.525	12.300	10.900	1.400
7	--------	--------	--------	10.300	9.775	0.525	9.800	9.275	0.525	--------	--------	--------
8	11.300	10.600	0.700	10.300	9.775	0.525	9.800	9.275	0.525	12.300	10.650	1.650
9	11.300	10.600	0.700	10.300	9.775	0.525	--------	--------	--------	12.300	10.525	1.775
10	11.300	10.525	0.775	10.300	9.775	0.525	9.800	9.275	0.525	11.300	10.650	1.650
11	11.300	10.650	0.650	10.300	9.775	0.525	9.800	9.275	0.525	11.300	10.275	1.025
12	11.300	10.400	0.900	--------	--------	--------	9.800	9.775	0.025	11.300	10.150	1.150
13	11.300	10.400	0.900	10.300	Holiday	--------	10.300	10.075	0.225	11.300	10.025	1.275
14	--------	--------	--------	10.300	9.775	0.525	10.800	10.800	--------	--------	--------	--------
15	11.300	10.300	1.000	10.300	9.775	0.525	12.300	11.400	0.900	11.300	9.975	1.325
16	11.050	10.275	0.775	10.300	9.775	0.525	--------	--------	--------	10.800	9.975	0.825
17	11.050	10.275	0.775	10.300	9.775	0.525	12.300	11.525	0.775	10.800	9.975	0.825
18	11.050	10.275	0.775	10.300	9.775	0.525	12.300	11.275	1.025	10.300	9.975	0.325
19	10.800	10.275	0.525	--------	--------	--------	12.300	11.025	1.275	10.300	9.975	0.325
20	10.800	10.275	0.525	10.300	9.650	0.650	12.300	10.213	2.087	10.300	9.975	0.325
21	--------	--------	--------	10.300	9.525	0.775	12.300	10.275	2.025	--------	--------	--------
22	10.800	10.150	0.650	10.300	9.525	0.775	12.300	10.275	2.025	10.300	9.900	0.400
23	10.800	10.150	0.650	10.300	9.275	1.025	--------	--------	--------	10.550	10.075	0.475
24	10.800	10.025	0.775	10.300	9.275	1.025	12.300	10.275	2.025	10.550	10.025	0.525
25	10.800	10.025	0.775	9.800	9.275	0.525	12.300	10.150	2.150	--------	Holiday	--------
26	10.800	9.900	0.900	--------	--------	--------	12.300	10.275	2.025	10.550	10.025	0.525
27	10.800	9.900	0.900	9.800	9.275	0.525	12.300	Holiday	--------	10.550	10.025	0.525
28	--------	--------	--------	9.800	9.275	0.525	12.300	10.400	1.900	--------	--------	--------
29	10.800	9.775	1.025	9.800	9.275	0.525	12.300	10.650	1.650	10.550	10.250	0.300
30	10.300	9.775	0.525	9.800	9.275	0.525	--------	--------	--------	10.800	10.275	0.525
31	--------	--------	--------	9.800	9.275	0.525	--------	--------	--------	10.800	10.275	0.525

1931	January			February			March			April		
1	10.800¢	Holiday	--------	--------	--------	--------	--------	--------	--------	10.300¢	9.525¢	0.775¢
2	10.800	10.275¢	0.525¢	10.050¢	9.525¢	0.525¢	10.800¢	10.275¢	0.525¢	10.300	9.425	0.725
3	10.800	10.275	0.525	10.050	9.275	0.775	10.800	10.275	0.525	10.300	9.275	1.025
4	--------	--------	--------	10.050	9.275	0.775	10.800	10.275	0.525	10.300	9.275	1.025
5	10.800	10.275	0.525	10.050	9.275	0.775	10.800	10.275	0.525	--------	--------	--------
6	10.800	10.275	0.525	10.050	9.350	0.700	10.800	10.025	0.775	10.300	9.275	1.025
7	10.800	10.025	0.775	9.800	9.275	0.525	10.800	10.025	0.775	10.300	9.275	1.025
8	10.800	9.900	0.900	--------	--------	--------	--------	--------	--------	10.300	9.525	0.775
9	10.550	9.775	0.775	9.800	9.275	0.525	10.800	10.025	0.775	10.300	9.525	0.775
10	10.300	9.775	0.525	10.050	9.575	0.475	10.800	9.800	1.000	10.300	9.525	0.775
11	--------	--------	--------	10.300	9.775	0.525	10.800	9.800	1.000	10.300	9.775	0.525
12	10.300	9.775	0.525	10.300	Holiday	--------	10.300†	9.900	0.400	--------	--------	--------
13	10.300	9.775	0.525	10.300	9.775	0.525	10.300†	9.775	0.525	10.300	9.775	0.525
14	10.300	9.775	0.525	10.300	9.775	0.525	10.550	9.775	0.775	10.300	9.775	0.525
15	10.300	9.775	0.525	--------	--------	--------	--------	--------	--------	10.300	9.525	0.775
16	10.300	9.775	0.525	10.300	9.775	0.525	10.550	9.775	0.775	10.300	9.500	0.800
17	10.300	9.775	0.525	10.300	9.775	0.525	10.550	9.775	0.775	10.300	9.300	1.000
18	--------	--------	--------	10.300	9.900	0.400	10.550	9.775	0.775	10.300	9.275	1.025
19	10.300	9.775	0.525	10.550	10.025	0.525	10.550	9.775	0.775	--------	--------	--------
20	10.300	9.775	0.525	10.550	10.025	0.525	10.550	9.775	0.775	10.050	9.275	0.775
21	10.300	9.775	0.525	10.550	10.025	0.525	10.550	9.775	0.775	10.050	9.275	0.775
22	10.300	9.775	0.525	--------	--------	--------	--------	--------	--------	10.050	9.275	0.775
23	10.300	9.775	0.525	10.550	Holiday	--------	10.550	9.775	0.775	10.050	9.275	0.775
24	10.300	9.775	0.525	10.550	10.025	0.525	10.300†	9.775	0.525	10.050	9.275	0.775
25	--------	--------	--------	10.550	10.025	0.525	10.300	9.775	0.525	10.050	9.275	0.775
26	10.300	9.775	0.525	10.550	10.025	0.525	10.300	9.775	0.525	--------	--------	--------
27	10.300	9.775	0.525	10.550	10.025	0.525	10.300	9.650	0.650	10.050	9.275	0.775
28	10.300	9.775	0.525	10.550	10.150	0.400	10.300	9.525	0.775	10.050	9.275	0.775
29	10.300	9.525	0.775	--------	--------	--------	--------	--------	--------	9.800	9.225	0.575
30	10.300	9.525	0.775	--------	--------	--------	10.300	9.525	0.775	9.800	9.213	0.587
31	10.050	9.525	0.525	--------	--------	--------	10.300	9.525	0.775	--------	--------	--------

†Additional tonnage at 10.550¢.

Prepared by R. R. Eckert former manager of Copper Exporters, Inc.

Comparison of domestic prices and foreign prices of Copper Exporters, Inc., 1926–1931—Continued

	1	2	3	1	2	3	1	2	3	1	2	3
	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign	Foreign	Domestic	Excess Foreign
1931	May			June			July			August		
1	9.800¢	9.025¢	0.775¢	9.025¢	8.150¢	0.875¢	9.275¢	8.150¢	1.125¢	8.250¢	7.275¢	0.975¢
2	9.800	8.900	0.900	8.775	7.850	0.925	9.275	8.400	0.875	-------	-------	-------
3	-------	-------	-------	8.775	7.775	1.000	9.275	8.275	1.000	8.250	7.525	0.725
4	9.800	8.775	1.025	8.525	7.975	0.550	9.275	Holiday	-------	8.000	7.275	0.725
5	9.800	8.775	1.025	8.525	8.025	0.500	-------	-------	-------	8.000	7.275	0.725
6	9.800	8.775	1.025	8.525	8.025	0.500	9.275	8.150	1.125	8.000	7.275	0.725
7	9.775	8.775	1.000	-------	-------	-------	9.275	7.950	1.325	8.000	7.400	0.600
8	9.775	8.775	1.000	8.525	8.025	0.500	8.775	7.775	1.000	8.000	7.275	0.725
9	9.775	8.775	1.000	8.525	8.025	0.500	8.775	7.775	1.000	-------	-------	-------
10	-------	-------	-------	8.525	8.025	0.500	8.775	7.775	1.000	8.000	7.275	0.725
11	9.775	8.775	1.000	8.525	8.025	0.500	8.250	7.775	0.475	8.000	7.275	0.725
12	9.775	8.775	1.000	8.525	7.775	0.750	-------	-------	-------	8.000	7.275	0.725
13	9.525	8.775	0.750	8.525	7.775	0.750	8.250	7.525	0.725	8.000	7.275	0.725
14	9.525	8.775	0.750	-------	-------	-------	8.250	7.525	0.725	8.000	7.275	0.725
15	9.525	8.775	0.750	8.525	7.825	0.700	8.250	7.525	0.725	8.000	7.275	0.725
16	9.525	8.775	0.750	8.525	7.775	0.750	8.250	7.525	0.725	-------	-------	-------
17	-------	-------	-------	8.525	7.775	0.750	8.250	7.525	0.725	8.000	7.275	0.725
18	9.275	8.775	0.500	8.275	7.775	0.500	8.250	7.650	0.600	8.000	7.275	0.725
19	9.275	8.775	0.500	8.275	7.550	0.725	-------	-------	-------	8.000	7.275	0.725
20	9.275	8.525	0.750	8.275	7.725	0.550	8.250	7.713	0.537	8.000	7.275	0.725
21	9.275	8.325	0.950	-------	-------	-------	8.250	7.650	0.600	8.000	7.275	0.725
22	9.275	8.400	0.875	8.275	7.775	0.500	8.250	7.650	0.600	8.000	7.275	0.725
23	9.275	8.650	0.625	8.525	8.025	0.500	8.250	7.650	0.600	-------	-------	-------
24	-------	-------	-------	8.775	8.275	0.500	8.250	7.463	0.787	8.000	7.275	0.725
25	9.275	8.525	0.750	8.900	8.350	0.550	8.250	7.463	0.787	8.000	7.275	0.725
26	9.275	8.525	0.750	8.900	8.525	0.475	-------	-------	-------	8.000	7.275	0.725
27	9.025	8.350	0.675	8.900	8.525	0.375	8.250	7.525	0.725	8.000	7.350	0.650
28	9.025	8.275	0.750	-------	-------	-------	8.250	7.525	0.725	8.000	7.275	0.725
29	9.025	8.275	0.750	8.900	8.775	0.125	8.250	7.525	0.725	8.000	7.275	0.725
30	9.025	Holiday	-------	9.275	8.525	0.750	8.250	7.375	0.875	-------	-------	-------
31	-------	-------	-------	-------	-------	-------	8.250	7.300	0.950	8.000	7.275	0.725
	September			October			November			December		
1	8.000¢	7.275¢	0.725¢	7.000¢	6.775¢	0.225¢	-------	-------	-------	7.000¢	6.275¢	0.725¢
2	8.000	7.275	0.725	7.000	6.775	0.225	7.000¢	6.775¢	0.225¢	7.000	6.275	0.725
3	8.000	7.275	0.725	7.000	6.775	0.225	7.000	-------	-------	7.000	6.275	0.725
4	8.000	7.275	0.725	-------	-------	-------	7.000	6.775	0.225	7.000	7.275	0.725
5	8.000	7.275	0.725	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725
6	-------	-------	-------	7.000	6.775	0.225	7.000	6.775	0.225	-------	-------	-------
7	8.000	-------	-------	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725
8	8.000	7.275	0.725	7.000	6.775	0.225	-------	-------	-------	7.000	6.275	0.725
9	8.000	7.275	0.725	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725
10	7.750	7.150	0.600	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725
11	7.750	7.150	0.600	-------	-------	-------	7.000	6.775	0.225	7.000	6.275	0.725
12	7.750	7.150	0.600	7.000	-------	-------	7.000	6.775	0.225	7.000	6.150	0.850
13	-------	-------	-------	7.000	6.775	0.225	7.000	6.775	0.225	-------	-------	-------
14	7.750	7.025	0.725	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.150	0.850
15	7.750	7.025	0.725	7.000	6.775	0.225	-------	-------	-------	7.000	6.275	0.725
16	7.500	6.975	0.525	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725
17	7.500	6.775	0.525	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.575	0.425
18	7.500	6.775	0.525	-------	-------	-------	7.000	6.525	0.475	7.500	6.650	0.850
19	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725	7.500	7.025	0.475
20	-------	-------	-------	7.000	6.775	0.225	7.000	6.275	0.725	-------	-------	-------
21	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.150	0.850	7.500	7.025	0.475
22	7.000	6.775	0.225	7.000	6.775	0.225	-------	-------	-------	7.500	7.025	0.475
23	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.150	0.850	7.500	7.025	0.475
24	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.150	0.850	7.500	7.025	0.475
25	7.000	6.775	0.225	-------	-------	-------	7.000	6.150	0.850	-------	-------	-------
26	7.000	6.775	0.225	7.000	6.775	0.225	7.000	-------	-------	7.500	7.025	0.475
27	-------	-------	-------	7.000	6.775	0.225	7.000	6.275	0.725	-------	-------	-------
28	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.525	0.475	7.500	7.025	0.475
29	7.000	6.775	0.225	7.000	6.775	0.225	-------	-------	-------	7.500	7.025	0.475
30	7.000	6.775	0.225	7.000	6.775	0.225	7.000	6.275	0.725	7.500	7.025	0.475
31	-------	-------	-------	7.000	6.775	0.225	-------	-------	-------	7.500	7.025	0.475

EXHIBIT No. 2153

33 RECTOR STREET, NEW YORK, *April 25, 1934.*

The following base prices for Connecticut Valley delivery have been filed in accordance with New Article VII, Section 2, effective April 26, 1934:

American Metal Co., Ltd	8. 50¢
American Smelting & Refining Co	8. 50¢
Anaconda Copper Mining Co	8. 50¢
Calumet & Hecla Cons. Copper Co	8. 50¢
Cons. Coppermines Corp., daily average	
Copper Range Co	8. 50¢
Kennecott Copper Corp	8. 50¢
Lewin Metal Corp	
Magma Copper Co	8. 50¢
Miami Copper Co	8. 50¢
Nichols Copper Co	8. 50¢
Phelps Dodge Corp	8. 50¢
Tennessee Copper Co	8. 50¢
United Verde Copper Co	8. 50¢
United Verde Ext. Mining Co.	

R. R. ECKERT,
Sales Clearing Agent.

Certified Copy.

R. R. ECKERT,
Secretary.

EXHIBIT No. 2154

COPPER CODE AUTHORITY,
26 Broadway, New York, June 12, 1934.

MEMORANDUM FOR THE CODE AUTHORITY

A price of 9¢ per pound, delivered Connecticut Valley, subject to existing differentials, was filed in the afternoon of June 11th by the following members, such price to be effective at the beginning of business June 12th:

American Metal Co. Ltd.
American Smelting & Refining Co.
Anaconda Copper Mining Co.
Calumet & Hecla Cons. Copper Co.
Consolidated Coppermines Corp.
Kennecott Copper Corp.
Lewin Metals Corp.
Miami Copper Co.
Tennessee Copper Co.
Nassau Smelting & Refining Co.

Certified Copy.

R. R. ECKERT,
Secretary.

EXHIBIT No. 2155

MINUTES OF MEETING OF THE COPPER INDUSTRY, APRIL 16, 1935

A meeting of the Copper Industry was held on Tuesday, April 16, 1935, at 12:10 A. M., in the Board Room of the Copper Code Authority, at 26 Broadway, New York.

Companies comprising the Copper Industry were represented as follows:

Kennecott Copper Corporation by Mr. E. T. Stannard, Mr. C. T. Ulrich, Mr. R. C. Klugescheid.
Anaconda Copper Mining Company by Mr. R. E. Dwyer.
Phelps Dodge Corporation by Mr. J. F. McClelland.
American Metal Company by Mr. B. N. Zimmer.

American Smelting & Refining Co. by Mr. F. H. Brownell.
Calumet & Hecla Cons. Copper Co. by Mr. A. D. Nicholas.
Miami Copper Company by Mr. E. H. Westlake, Mr. A. H. Singer.
Magma Copper Company by Mr. Carroll Searls.
Nichols Copper Company by Mr. W. C. Bennett.
Copper Range Company by Mr. W. P. Todd.
Consolidated Coppermines Corp. by Mr. Thos. Bardon.

Also, Mr. Clinton H. Crane, Mr. H. O. King, Mr. A. E. Petermann, Mr. R. R. Eckert.

Mr. Stannard presided.

Mr. Eckert acted as Secretary.

Mr. Petermann presented a draft of a letter to the Finance Committee of the United States Senate. After discussion on motion duly made, seconded and carried, it was

(1) RESOLVED: That Mr. A. E. Petermann acting as Secretary of the United States Copper Association be and he is hereby authorized and instructed to sign and mail letter to the Finance Committee of the United States Senate in the attached form and it was further

(2) RESOLVED: That a committee of four persons be appointed with which Mr. Petermann may consult regarding further action in connection with legislation in which the Copper Industry may be interested.

The Chairman appointed the following persons: Mr. C. F. Kelley, Mr. J. F. McClelland, Mr. F. H. Brownell, Mr. E. H. Westlake.

The meeting adjourned.

Certified Copy.

R. R. ECKERT,
Secretary.

COMMITTEE ON FINANCE,
United States Senate, Washington, D. C.

GENTLEMEN: The Copper Industry in the United States has given consideration to certain proposed legislation for the extension of the National Industrial Recovery Act.

It is opposed to Senate Bill No. 2445, for the reason that the bill not only fails to meet the requirements and necessities of the Industry but is also objectionable in that it subjects the Industry to the jeopardy of an undue measure of involuntary control.

The Industry is in favor of the enactment of legislation which will permit its members to cooperate voluntarily, particularly with reference to production, the liquidation of surplus stocks, the marketing of its product and the adoption of rules of fair competition.

The Industry respectfully suggests that the legislation necessary for this purpose whether enacted independently or as a component part of legislation extending the National Industrial Recovery Act take a form similar to that of the Capper-Volstead Act applying to agriculture enacted in 1922 and in effect since that time. With some slight modifications, both the substance and the language of that Act can be adapted to cover the needs of the Copper Industry and the Industry therefore brings the subject of that type of legislation to the attention of your Committee at this time and asks that it be given consideration in the formulation of any legislation affecting this Industry.

Respectfully Submitted.

UNITED STATES COPPER ASSOCIATION,
By ——— ———, *Secretary.*

Certified Copy.

R. N. ECKERT, *Secretary.*

Exhibit No. 2156

Share of Foreign Production of Copper Controlled by Participants in the International Agreement, 1935–1938

[Amount in short tons]

Company	1935	1936	1937	1938
Total foreign production [1]	1,236,932	1,233,550	1,669,131	1,630,837
Foreign production, exclusive of Russia [1]	1,167,215	1,142,059	1,567,168	1,522,812
Production by participants in agreement: [2]				
Amount	618,377	574,664	885,506	792,116
Per cent of total foreign production	50.0	46.6	53.1	48.6
Per cent of foreign production, exclusive of Russia	53.0	50.3	56.5	52.0
United States participants	293,670	271,747	441,971	371,766
For Anaconda	181,660	169,703	282,886	239,732
Chile	131,994	123,433	200,402	163,213
Andes	28,641	30,027	60,478	60,880
Cananea	21,025	16,243	22,006	15,639
For Kennecott—Braden	112,010	102,044	159,085	132,034
Foreign participants [2]	324,707	302,917	443,525	420,350
Bor	42,689	43,126	43,137	46,288
Katanga	118,699	105,454	165,993	[3] 136,700
Mufulira	30,809	33,859	50,164	67,105
Rhokana	67,614	62,590	95,488	90,145
Roan Antelope	64,896	57,888	88,753	80,112

[1] Based largely on blister output.
[2] Excluding Rio Tinto for which figures were not reported.
[3] Unofficial.

Source: Prepared by the staff of the T. N. E. C. from figures of the American Bureau of Metal Statistics.

Exhibit No. 2157

March 28, 1935.

Memorandum of Provisions Covering Curtailment and Production Control of African, South American, and European Producers

Recital.—The purpose of the above mentioned producers in participating in this memorandum is to bring about better conditions in the production, distribution and marketing of copper throughout the world outside of the United States, and it is specifically provided that none of the terms hereof shall apply to the United States. Accordingly:

Article 1.—Mine production shall be curtailed from agreed basic tonnage as set out in Schedule "A" hereto attached and made a part hereof to the extent of 20%, effective not later than May 1, 1935. For example, a cooperating producer whose basic production is 10,000 tons shall not produce more than 8,000 tons in the month of May 1935. The foregoing is subject to the exceptions stated in Schedule "A".

Article 2.—Mine production shall be curtailed from agreed basic tonnage to extent of 30%, effective not later than June 1, 1935, and shall continue at that rate until changed by the Control Committee hereinafter provided for. For example, a cooperating producer whose basic production is 10,000 tons shall not produce more than 7,000 tons in the month of June 1935 and following months subject to modification as herein provided. The foregoing is subject to the exceptions stated in Schedule "A".

Article 3.—If curtailment in excess of 30% of the basic production tonnage is decided upon by the Control Committee herein provided for, such further curtailment shall not become effective in any event prior to October 1, 1935, unless an earlier date is satisfactory to all participants. Any curtailment in excess of 30% shall be conditioned upon participants having contracts for which they have insufficient copper being able to make equitable arrangements to supply their commitments. Curtailment in excess of 40% shall be voluntary. Increases in production above basic tonnages shall be a matter to be considered by all participants.

The curtailment and production control shall take into account the consumptive demand.

Article 4.—In the event that any participant has a partial or complete cessation of production during the period of this agreement, said participant shall have the right to make up any production so lost.

Article 5.—A Control Committee shall be set up and the voting thereof shall be conducted in accordance with Schedule "C" hereto attached. The functions of this Committee shall be:

(a) To arrange for the gathering and distribution of statistics;

(b) To arrange for increases or decreases in production, in accordance with Articles 2 and 3 and Schedule "A";

(c) To receive, consider and decide questions relating to interpretations of this memorandum;

(d) To consider and advise upon any matters arising under this memorandum submitted to it by any of the participants;

(e) To hear complaints relative to alleged breaches of this memorandum. If the Committee, after a hearing and after full consideration, is of the opinion that any participant has committed a breach it shall give notice to the offending participant to remedy the breach within a reasonable time fixed by the Committee. The paiticipants agree to abide by the decision of the Committee. No representative of a participant against whom a complaint of breach of this memorandum is made shall sit upon the Committee which decides whether such breach has been made.

Article 6.—A Committee consisting of five members (to be made up in accordance with Schedule "D" hereto attached) shall be appointed to supervise and enforce the trade practices herein agreed upon and set forth in Schedule "B" in the markets to which this memorandum applies. Such Committee shall undertake a study of the entire problem of the cooperative marketing of copper in such markets and shall make a final report of its recommendations to the participants as soon as practicable, for acceptance by all participants. The basic quotas of production herein respectively agreed upon by the participants, and the rate of production fixed from time to time in the manner herein provided shall continue until July 1, 1938, provided there has been a unanimous acceptance of the report specified herein not later than April 1, 1936. This memorandum, however, may on unanimous consent be extended for a further period beyond July 1, 1938, and for the purpose of considering such extension a meeting of the participants shall be called not later than six months prior to the expiration date.

The trade practices and the marketing report of said Committee on its acceptance, except as may be modified by the unanimous consent of the parties affected, shall run as to term contemporaneously with the said production curtailment and control as herein provided.

Article 7.—If in the opinion of any participant a case of force majeure has arisen which renders this memorandum in its present form inequitable or unworkable such participant shall report the fact to the Control Committee which shall promptly investigate and make recommendations. If, after discussion, such recommendations are not accepted by all the participants the Committee shall declare the arrangement at an end.

SCHEDULE "A".—*Production Schedule for Members of the Cooperating Group, First Period Ending December 31, 1936*

[Production in Short Tons Per Month]

Curtailment	Chile-Andes-Greene Group	Katanga	Braden	Rhokana	Roan	Mufulira	Rio Tinto
(a) Basic tonnage	18,500	11,000	10,976	6,720	6,720	3,730	3,172
(b) 5%	17,575	10,450	10,427	6,384	6,384	3,543	3,013
(c) 10%	16,650	9,900	9,878	6,048	6,048	3,356	2,855
(d) 15%	15,725	9,350	9,330	5,712	5,712	3,170	2,696
(e) 20%	14,800	8,800	8,781	5,376	5,376	2,984	2,538
(f) 25%	13,875	8,250	8,232	5,040	5,040	2,797	2,379
(g) 30%	12,950	7,700	7,683	4,704	4,704	2,611	2,220
(h) 35%	12,025	7,150	7,134	4,368	4,368	2,424	2,062
(i) 40%	11,100	6,600	6,586	4,032	4,032	2,238	1 903

MEMORANDUM

Conditioned upon the acceptance by the cooperating group of the respective positions defined in this Schedule "A", the Bor Company, through Mr. Bellanger, stated that its maximum production would be as follows:

For the calendar years 1935 ---------------------------------- 39,000 metric tons;
For the calendar years 1936 and 1937 respectively---------- 38,000 metric tons.

In the event of a curtailment of 40% by the cooperating producers, Bor will curtail to 37,000 metric tons as a maximum production for the calendar years 1936 and 1937.

Mr. Bellanger presented the following schedule of production for the Bor Company:

When cooperating members curtail	Bor's Production will not exceed (short tons per month)	
	1935	1936 & thereafter
(a) Basic tonnage	4,400	4,400
(b) 5%	4,263	4,248
(c) 10%	4,125	4,097
(d) 15%	3,988	3,945
(e) 20%	3,850	3,794
(f) 25%	3,713	3,641
(g) 30%	3,575	3,489

NOTE.—The Bor position, as herein set out, is not accepted as final by the other participants. Its proposal is included herein tentatively with the understanding that representations will be made by the other participants through Mr. Bellanger, in the effort to induce the Board of Directors of the Bor Company to fix a production position more nearly in accord with that of the other participants.

SUPPLEMENTAL SCHEDULE "A".—*Net Relative Productions—Second Period, January 1, 1937 to September 30, 1937*

[Production in Short Tons Per Month]

Curtailment	Chile-Andes-Greene Group	Katanga	Braden	Rhokana	Roan	Mufulira	Rio Tinto
(a) Basic Tonnage less Mufulira Allowance	18,500	10,809	10,785	6,529	6,507	4,640	3,110
(b) 5%	17,575	10,269	10,246	6,203	6,181	4,407	2,954
(c) 10%	16,650	9,728	9,706	5,876	5,856	4,176	2,799
(d) 15%	15,725	9,188	9,168	5,550	5,531	3,943	2,643
(e) 20%	14,800	8,647	8,628	5,223	5,205	3,712	2,489
(f) 25%	13,875	8,107	8,089	4,897	4,880	3,478	2,333
(g) 30%	12,950	7,566	7,549	4,570	4,555	3,248	2,177
(h) 35%	12,025	7,026	7,010	4,244	4,229	3,015	2,022
(i) 40%	11,100	6,485	6,471	3,917	3,904	2,785	1,866

Table Showing Computation of Tonnages Contributed by Producers to Offset Mufulira Tonnage Increase in Second Period, January 1, 1937 to Sept. 30, 1937

[Short Tons Per Month]

Curtailment	Katanga	Braden	Rhokana	Roan	Mufulira	Bor	Rio Tinto	Total
	17%	*17%*	*17%*	*19%*	*19%*	*5.5%*	*5.5%*	*100%*
5%	181	181	181	203	203	59	59	1,067
10%	172	172	172	192	192	56	56	1,012
15%	162	162	162	181	181	53	53	954
20%	153	153	153	171	171	49	49	899
25%	143	143	143	160	160	46	46	841
30%	134	134	134	149	149	43	43	786
35%	124	124	124	139	139	40	40	730
40%	115	115	115	128	128	37	37	675

NOTE.—These figures are computed on a basic tonnage for Mufulira of 3,730 short tons per month until December 31, 1936; 4,853 short tons per month for the second period from January 1, 1937 to September 30, 1937, and 5,972 short tons per month for the third period from October 1, 1937, to June 30, 1938.

SUPPLEMENTAL SCHEDULE "A".—*Net Relative Productions—Third Period, October 1, 1937 to June 30, 1938*

[Production in Short Tons Per Month]

Curtailment	Chile-Andes-Greene Group	Katanga	Braden	Rhokana	Roan	Mufulira	Rio Tinto
(a) Basic Tonnage less Mufulira Allowance	18,500	10,618	10,594	6,338	6,295	5,547	3,049
(b) 5%	17,575	10,088	10,065	6,022	5,979	5,268	2,896
(c) 10%	16,650	9,557	9,535	5,705	5,665	4,990	2,744
(d) 15%	15,725	9,026	9,006	5,388	5,350	4,714	2,591
(e) 20%	14,800	8,495	8,476	5,071	5,035	4,438	2,439
(f) 25%	13,875	7,964	7,946	4,754	4,721	4,158	2,287
(g) 30%	12,950	7,433	7,416	4,437	4,406	3,882	2,134
(h) 35%	12,025	6,902	6,886	4,120	4,091	3,605	1,982
(i) 40%	11,100	6,371	6,357	3,803	3,777	3,328	1,829

Table Showing Computation of Tonnages Contributed by Producers to Offset Mufulira Tonnage Increase in Third Period, October 1, 1937 to June 30, 1938

[Short Tons Per Month]

Curtailment	Katanga	Braden	Rhokana	Roan	Mufulira	Bor	Rio Tinto	Total
	17%	*17%*	*17%*	*19%*	*19%*	*5.5%*	*5.5%*	*100%*
5%	362	362	362	405	405	117	117	2,130
10%	343	343	343	383	383	111	111	2,017
15%	324	324	324	362	362	105	105	1,906
20%	305	305	305	341	341	99	99	1,795
25%	286	286	286	319	319	92	92	1,680
30%	267	267	267	298	298	86	86	1,569
35%	248	248	248	277	277	80	80	1,458
40%	229	229	229	255	255	74	74	1,345

NOTE.—These figures are computed on a basic tonnage for Mufulira of 3,730 short tons per month until December 31, 1936; 4,853 short tons per month for the second period from January 1, 1937, to September 30, 1937, and 5,972 short tons per month for the third period from October 1, 1937, to June 30, 1938.

SCHEDULE "B",—*Committee Functions and Trade Practices*

1. Copper To Be Included;
   - (a) Ore, concentrates, matte or other crude material produced for sale or sold as such, excluding scrap;
   - (b) Blister and Rough;
   - (c) Fire Refined;
   - (d) Electrolytic or other copper of whatever grade (cathodes and shapes);
   - (e) Rods.
2. Statistical clearing houses for the gathering and dissemination of all pertinent statistical data shall be located at points approved by the Committee. The Clearing Houses shall make:
   - A. (1) A complete survey of all marketable stocks as at the date hereof and monthly thereafter;
     - (2) A complete survey of the sales position, for which purpose members shall report to the Clearing House as soon as practicable after the date hereof and monthly thereafter all contracts made and deliveries thereunder, setting out in each case the grade of copper, duration of contract (up to end of 1936 only), price and whether sold to ultimate consumer or not.
   - B. Members shall report sales daily to the Clearing Houses showing prices, differentials, tonnages, ports and countries of destination, and month of delivery. Sales in home markets not accessible to other members shall only be reported as to tonnage.
   - C. Clearing Houses shall issue to the membership a summary of surveys (1) and (2) as soon as completed and every month thereafter, and in the case of daily sales they shall issue a summary to the membership each business day.

3. In addition to the above-mentioned functions of the Committee, close daily contact should be maintained between the various selling organizations with a view to eliminating destructive price cutting and bringing about stable market conditions.
4. Uniformity of sales contracts to be established by the Committee so far as possible under existing circumstances.
   Sales shall be made as far as possible to consumers only or, if to merchants for account of consumers, with the intent to prevent speculation by dealers, except that sales of copper in unfinished form and requiring further processing may be made to Custom Smelters or refineries regularly engaged in such business.
   Merchants to whom sales as above are made should be asked to report sales to ultimate consumers the same as members of the cooperating group.
   Sales may be made through agents on customary commission basis and on the European Metal Exchanges for hedging only.
5. Electrolytic brands at seller's option wherever acceptable.
6. Sales to be on C. I. F. basis for usual ports of destination with differentials for other delivery points; or F. A. S. seaboard ports of shipment.
7. It is agreed that the members, insofar as possible, will endeavor to make available to customers copper of the grades which they have been customarily receiving.
8. Liberal exchange arrangements should be made between sellers.

Schedule "C"

The Control Committee to be established under Article 5 shall consist of one representative from each of the following participants:

Union Miniere du Haut Katanga;
Rhokana Corporation, Ltd;
Roan Antelope Copper Mines, Ltd;
Group consisting of Chile Exploration Co., Andes Copper Mining Co., Greene Cananea Copper Co.
Braden Copper Company.

In cases of difference of opinion amongst members of the Committee respecting points (a) (b) (c) (d) or (e) of Article 5, decision in the matter shall be by the concurring vote of not less than 4 of the 5 members of the Committee. Should one or more members of the Committee be disqualified as provided under Article 5 (e) the other members or the Committee shall appoint from the representatives of the cooperating group who are not involved in the controversy, an additional member of members to take their place.

It is understood that one representative each from the Compagnie Francaise des Mines de Bor and the Rio Tinto Company, Ltd., shall have the right to attend (without vote) all meetings of the Committee and to receive copies of all minutes of such meetings and of decisions made by the Committee, as well as any other information concerning matters related to Schedule "A" which may be discussed from time to time by the Committee.

Schedule "D"

Under Article 6 it is provided that a Committee consisting of five members shall be appointed to supervise and enforce the trade practices as set forth in Schedule "B."

It is agreed that this Committee of five shall consist of a representative from each of the following participants:

Rhokana Corporation, Ltd;
Union Miniere du Haut Katanga;
Group consisting of Roan Antelope Copper Mines, Ltd; Mufulira Copper Mines, Ltd.
Group consisting of Chile Exploration Co., Andes Copper Mining Co., Greene Cananea Copper Co.
Braden Copper Company.

The representatives who shall initially serve on this Committee shall be: Mr. S. S. Taylor (Chairman); Mr. Fernand Pisart; Mr. B. N. Zimmer; Mr. E. Mosehauer; Mr. C. T. Ulrich; with the further understanding that one representative each from the Compagnie Francaise des Mines de Bor, the Rio Tinto Company, Ltd., and Roan Antelope Copper Mines, Ltd., shall have the right to attend (without vote) all meetings of the Committee and to receive copies of all minutes of such meetings and of decisions made by the Committee as well as any other information concerning matters related to Schedule "B" which may be discussed from time to time by the Committee.

EXHIBIT NO. 2158

MINUTES—MEETING HELD AT LONDON, JULY 15, 1935

Present: Messrs. Taylor, Chairman of Committee; Mosehauer, Member; Pisart, Member; Ulrich, Member; Zimmer, Member.

Also present: Messrs. Bellanger, Gutt, Marshall, Preston, Sengier, Storke, Van der Wolf.

The following decisions were taken with respect to the various proposals made by the meeting held at Brussels on May 14, 1935:

(*1*) *Distribution of Daily Sales Reports.*—It was agreedthat the daily sales reports shall be distributed to anyone or more representatives designated by the cooperating Producers, and that Mr. Marshall may post the Mond Nickel Company each day.

(*2*) *Forward Fixed Price Elcctro Sales.*—It was agreed that forward fixed price electro sales shall be limited to shipment—from the usual shipment point for the respective producers—during the current and five following months.

(*3*) *Forward Fixed Price Sales of Grades Other Than Electro.*—It was agreed that for such sales the same limitation shall apply as for fixed price electro sales.

(*4*) *Rebates—Contracts for Electro on Scale Basis.*—It was agreed to leave this question in abeyance.

(*5*) *Differential for Fixed Price Sales of Fire-Refined.*—It was agreed to leave this question to be agreed upon between Messrs. Mosehauer and Ulrich. Katanga agreed to apply the differential agreed upon by Messrs. Mosehauer and Ulrich.

(Typewriter alongside preceding paragraph:) 25/ or 25 pts. for ingot bars and 10/ or 10 pts. for cakes were agreed upon.

(*6*) *Maximum Differential for Sales of Blister.*—It was not considered advisable—for the time being—to fix any maximum differential for sales of blister.

It was agreed that blister with a guaranteed copper content of 99% minimum shall be sold "tel quel", in other words, that the prices shall apply to the weight of the Blister, the copper content not being considered.

(*7*) *Allowance for Electro Cathodes.*—It was agreed that the allowance to be granted for electro cathodes shall be fixed as follows, under the Electro Wide Bar price quoted at the time:

For sales in Sterling: 10 shillings.
For sales in Cents: 12½ points.

(*8*) *Avoiding Price Cutting Between Producers.*—It was agreed that the representatives of the various Producers shall cooperate, by exchanging information, with a view to avoiding price cutting.

(*9*) *Sales Positions of Producers to be Reported.*—It was agreed that the Producers will advise each other weekly of their sales position. (In different typewriting:) Never done.

It was agreed that, at the end of the month, the clearing bureaus shall prepare a statement showing the aggregate sales made by the group as a whole, in comparison with the aggregate production figures for the months during which the sales are to be delivered.

(*10*) *1 PM Report.*—It was agreed that the 1 PM report shall give the following details.

Electro fixed price sales, with prices.
B S. fixed price sales, no prices.
Fixations Electro, no prices.
Fixations other grades, no prices.

It was agreed that sales, and fixations against average price contracts, of blister sold by a producer to a custom refiner, on the basis of a certain quotation for electro, less a refining charge, may be reported by the producer as sales or fixations of electro. This applies more specifically to some of Bor's contracts, the terms of which do not permit the reporting of these sales as blister at a fixed differential under electro.

JOHAN VAN DER WOLF.

(Submitted to D. E. Scoll per his request of 1/10/40 to E. T. S.)

Exhibit No. 2159

(Chart based on following statistical data appears on p. 13536.)

Foreign Copper Before and After the International Agreement of 1935, Monthly, 1933–1939

[Amount in short tons]

Year and month	Foreign production [1]	Deliveries of foreign produced copper to customers ex.—U.S.[2]	Production under international agreement: Maximum output allowed [3]	Production under international agreement: Actual output [3]	Production under international agreement: Actual output as a per cent of all foreign output [4]	U. S. exports of "duty-free" copper [5]
	(1)	(2)	(3)	(4)	(5)	(6)
1933						
July	61,860	53,379				4,853
August	63,560	46,972				6,863
September	61,912	63,397				4,885
October	63,622	59,787				1,406
November	67,381	68,492				2,696
December	65,454	63,997				7,328
Total, six months	383,779	356,024				28,031
1934						
January	63,968	60,538				6,470
February	62,500	67,160				6,077
March	68,286	76,338				9,109
April	73,676	68,385				11,615
May	77,442	74,804				8,071
June	76,047	68,123				13,756
July	77,200	60,989				12,104
August	86,147	60,337				13,449
September	85,799	67,231				7,417
October	91,376	74,209				14,155
November	89,418	81,276				14,241
December	89,388	67,673				9,402
Total	941,247	827,063				125,866
1935						
January	88,885	75,676				7,224
February	90,163	73,309				10,788
March	95,060	63,591				27,429
April	104,129	79,215				12,897
May	83,911	75,569	52,014	48,958	58.3	12,091
June	78,206	74,332	45,931	47,665	60.9	7,514
July	77,540	88,086	45,931	46,626	60.1	3,337
August	80,008	81,399	45,931	44,939	56.2	3,131
September	80,778	85,591	45,930	45,741	56.6	2,314
October	82,655	105,412	45,930	46,334	56.1	(6)
November	83,138	96,790	45,930	47,434	57.1	2,429
December	79,008	84,285	45,930	45,280	57.3	2,965
Total	1,023,481	983,255		372,977		91,485
1936						
January	77,229	74,112	46,061	46,917	60.8	1,98[illegible]
February	78,549	83,114	46,061	45,587	58.0	3,63[illegible]
March	79,076	78,253	46,061	47,509	60.1	2,28[illegible]
April	74,331	77,574	46,061	45,805	61.6	3,87[illegible]
May	80,746	74,641	46,061	47,497	58.8	3,090
June	74,862	80,240	46,061	44,699	59.7	4,901
July	73,046	83,037	46,061	46,407	63.5	4,290
August	78,914	87,577	49,254	48,928	62.0	4,239
September	69,472	82,307	49,254	45,423	65.4	3,780
October	82,974	90,039	54,196	52,263	63.0	7,677
November	95,492	89,037	67,617	63,687	66.7	8,030
December	101,462	73,614	68,480	63,650	62.7	6,667
Total	966,153	973,545		598,372	61.9	54,447

[1] Mine or smelter production as reported by Copper Institute.
[2] Deliveries of refined copper as reported by Copper Institute.
[3] Figures provided by E. T. Stannard, Kennecott Copper Corporation, from compilations by R. R. Eckert, New York City.
[4] Column (4) divided by column (1).
[5] Domestic refined copper plus any copper previously imported duty-free.
[6] Minus quantity.

Foreign Copper Before and After the International Agreement of 1935, Monthly, 1933–1939—Continued

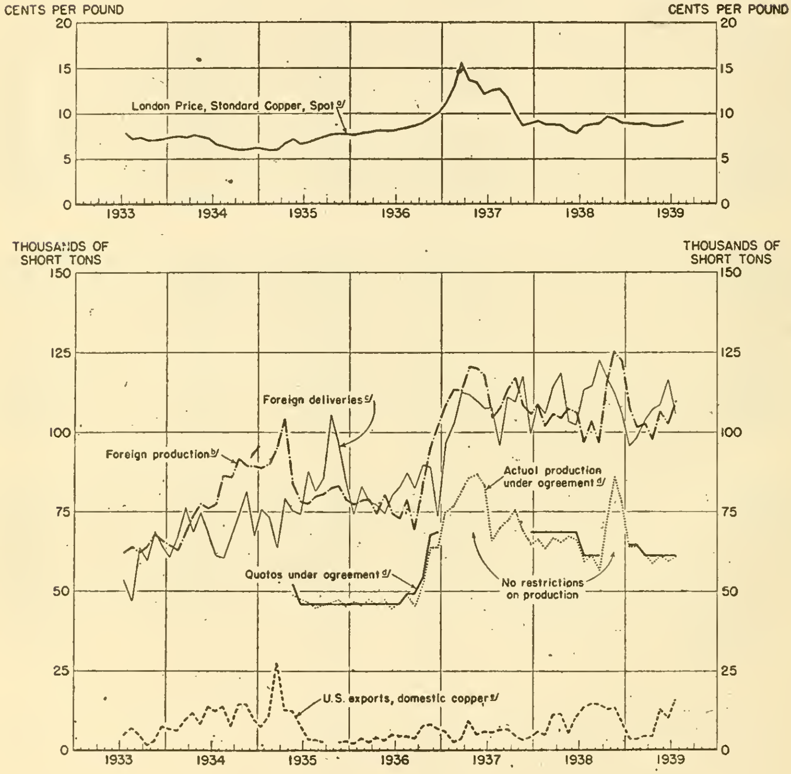
[Amount in short tons]

Year and month	Foreign production	Deliveries of foreign produced copper to customers ex.—U. S.	Production under international agreement: Maximum output allowed	Production under international agreement: Actual output	Production under international agreement: Actual output as a per-cent of all foreign output	U. S. exports of "duty-free" copper
	(1)	(2)	(3)	(4)	(5)	(6)
1937						
January	108,249	96,802	(7)	74,969	69.3	5,979
February	113,234	102,691	(7)	76,801	67.8	2,876
March	112,929	112,393	(7)	81,135	71.8	3,519
April	120,324	111,827	(7)	85,473	71.0	9,166
May	120,014	109,799	(7)	86,744	72.3	4,920
June	117,897	107,421	(7)	83,223	70.6	5,856
July	104,243	107,711	(7)	65,670	63.0	5,354
August	107,612	95,792	(7)	69,943	65.0	6,373
September	113,619	111,057	(7)	71,807	63.2	6,616
October	117,076	109,493	(7)	75,519	64.5	4,698
November	108,473	117,563	(7)	69,504	64.1	3,133
December	105,468	99,735	68,479	64,465	61.1	4,128
Total	1,349,138	1,282,284		905,253	67.1	62,798
1938						
January	108,621	108,823	68,479	65,910	60.7	5,824
February	102,092	105,903	68,479	63,163	61.9	4,893
March	105,643	114,127	68,479	66,496	62.9	11,142
April	104,413	118,390	68,479	65,215	62.5	11,187
May	107,199	103,413	68,479	67,057	62.6	5,110
June	106,177	102,090	68,479	65,840	62.0	10,440
July	96,635	113,185	61,056	59,222	61.3	13,348
August	103,403	114,416	61,056	61,126	59.1	14,761
September	96,618	122,793	61,056	56,434	58.4	14,282
October	114,913	116,340	(7)	72,469	63.1	12,795
November	125,667	112,180	(7)	85,866	68.3	13,260
December	122,417	106,073	(7)	78,305	64.0	8,827
Total	1,293,798	1,337,733		807,103	62.4	125,869
1939						
January	107,097	95,762	64,270	63,798	59.6	3,768
February	101,379	98,221	64,270	63,911	63.0	3,310
March	102,557	103,638	61,056	61,433	59.9	4,222
April	97,659	107,011	61,056	58,697	60.1	4,183
May	106,433	108,402	61,056	60,871	57.2	12,669
June	102,564	116,571	61,056	59,326	57.8	10,289
July	109,619	105,679	61,056	60,634	55.3	16,127
Total, seven months	727,308	735,284		428,670	58.9	54,568

[7] Unrestricted.

FOREIGN COPPER BEFORE AND AFTER THE INTERNATIONAL AGREEMENT OF 1935

MONTHLY, 1933-1939



a/ Prices from ENGINEERING AND MINING JOURNAL
b/ Mine or smelter production as reported by Copper Institute
c/ Deliveries of refined copper as reported by Copper Institute
d/ Figures provided by E T Stannard, Kennecott Copper Corp., from compilations by R R, Eckert, New York City
e/ Domestic refined copper plus any copper previously imported duty-free

Exhibit No. 2160

United States Exports of Duty-Free Copper [1] by Various Classes of Exporters, Monthly, 1934–1939

Year and Month	Primary Producers				Custom Smelters			By Other Exporters	Total
	Anaconda	Kennecott	Phelps Dodge	Other Producers	Amer. Metal	Am. Sm. & Ref.	Other Custom Smelters		
1934									
January			1,053	2,675		926		1,816	6,470
February		393	1,628	1,205	443		56	2,352	6,077
March		864	2,005	5,305	470			465	9,109
April		2,312	2,120	2,196	37	1,428		3,522	11,615
May		1,898	2,015	1,934	550	224		1,450	8,071
June		5,424	3,712	2,434	1,598	28	560		13,756
July		7,818	683	2,297	1,059	28	219		12,104
August		6,170	3,485	2,022	1,161		314	297	13,449
September		1,992	2,914	1,165	1,025		237	84	7,417
October		3,000	4,963	1,318	2,995	674	790	415	14,155
November		4,146	2,476	1,289	1,946	296	578	3,510	14,241
December		1,377	3,191	1,082	5	2,960	380	407	9,402
Total		35,394	30,245	24,922	11,289	6,564	3,134	14,318	125,866
1935									
January		1,566	3,331	931	3	763	305	325	7,224
February		1,236	6,210	1,750	6	651	99	836	10,788
March		1,018	22,409	1,768		1,533	671	30	27,429
April		1,652	3,847	5,310	19	596		1,473	12,897
May		4,093	4,369	2,389		1,053		187	12,091
June		437	4,033	1,537	751	653		103	7,514
July			689	958	976	37		677	3,337
August			1,467	244	1,420				3,131
September			4,480	62	282	10	[2] 2,520R		2,314
October			740	72	10	224	1,680R		634R
November			2,314	105	10	224	224R		2,429
December			3,602	35			672R		2,965
Total		10,002	57,491	15,161	3,477	5,744	4,021R	3,631	91,485
1936									
January			2,537		5	112	672R		1,982
February			3,529	35	10	56			3,630
March			1,978	85		224			2,287
April			2,173	52		1,649			3,874
May			2,734	31		773	448R		3,090
June			2,901	124		2,044	168R		4,901
July			2,663	3		1,624			4,290
August			2,963	22		442	812		4,239
September			2,869	2		722	187		3,780
October			2,478	291		700	4,208		7,677
November			3,081	560	300	56	3,921	112	8,030
Decmeber			3,273	381		72	2,269	672	6,667
Total			33,179	1,586	315	8,474	10,109	784	54,447
1937									
January			2,074	642	56	671	1,306	1,230	5,979
February				1,011		1,433	208	224	2,876
March				878	479	1,170	488	504	3,519
April	461R		572	1,357		6,390	222	1,086	9,166
May	224R		1,282	532	420	2,100	138	672	4,920
June			1,718	560	95	1,573	84	1,826	5,856
July			1,210	174	969	2,924	235	22	5,534
August			823	1,243	56R	4,258	105		6,373
September			125	1,894	1,350R	5,184	763		6,616
October			294	832		3,110	462		4,698
November			613	16		2,431	73		3,133
December			2,719	802		521	86		4,128
Total	685R		11,430	9,941	613	31,765	4,170	5,564	62,798
1938									
January			4,536	952	560R	336			5,824
February			2,630	588		2,235			4,893
March			4,289	1,340		5,513			11,142
April			5,379	2,215	476R	4,041		28	11,187
May			3,014	1,206		834		56	5,110
June			4,455	1,131	336R	5,190			10,440
July		588	3,487	1,755	73R	7,480	100	11	13,348

[1] Largely refined domestic coper plus any previous imports of duty-free copper.
[2] "R" indicates import balance.

United States Exports of Duty-Free Copper by Various Classes of Exporters, Monthly, 1934–1939—Continued

Year and Month	Primary Producers: Anaconda	Primary Producers: Kennecott	Primary Producers: Phelps Dodge	Primary Producers: Other Producers	Custom Smelters: Amer. Metal	Custom Smelters: Am. Sm. & Ref.	Custom Smelters: Other Custom Smelters	By Other Exporters	Total
August	--------	1,277	3,460	2,067	4,297	3,585	75	--------	14,761
September	--------	1,144	3,361	1,978	2,175	4,952	--------	672	14,282
October	--------	1,066	2,904	1,376	2,090	4,585	--------	774	12,795
November	--------	795	2,651	2,518	210	6,996	--------	90	13,260
Decmeber	--------	1,674	2,967	1,150	32R	3,042	--------	26	8,827
Total	--------	6,544	43,133	18,276	7,295	48,789	175	1,657	125,869
1939									
January	--------	1,109	1,500	--------	--------	1,159	--------	--------	3,768
February	--------	974	1,795	5	--------	536	--------	--------	3,310
March	--------	896	2,390	--------	--------	936	--------	--------	4,222
April	--------	--------	2,813	342	336R	1,364	--------	--------	4,183
May	--------	1,323	3,890	810	609R	7,399	--------	56	12,669
June	--------	2,045	1,456	865	181R	6,076	--------	28	10,289
July	--------	8,984	3,071	969	127R	3,146	--------	84	16,127
Total	--------	15,331	16,915	2,791	1,253R	20,616	--------	168	54,568

Source: Prepared by R. R. Eckert, Secretary of Copper Institute.

Exhibit No. 2161

(Chart based on following statistical data appears on p. 13540.)

United States production, refinery stocks, and sales of copper, monthly, 1933–1939

[Short tons]

Year and month	Production [1]	Refinery stocks, end of month [2]	Sales [3]
1933			
July	28,310	438,932	55,570
August	32,617	418,961	26,646
September	33,548	385,645	39,110
October	33,244	379,808	32,847
November	28,901	388,526	13,120
December	24,300	376,259	23,443
Total, six months	180,920	----------	190,736
1934			
January	26,908	380,839	22,998
February	27,038	361,307	24,275
March	27,727	350,039	32,052
April	30,300	336,835	61,590
May	32,811	318,801	15,085
June	32,526	290,208	53,279
July	30,380	258,658	4,657
August	26,867	243,366	9,497
September	30,232	224,936	6,281
October	31,153	221,568	16,477
November	31,531	217,937	15,553
December	33,061	225,581	22,415
Total	360,534	----------	284,159
1935			
January	35,673	251,102	26,678
February	38,527	210,112	30,817
March	38,303	180,648	37,672

[1] Primary output plus secondary output by custom smelters and refiners from purchased duty-free scrap, including duty-free Cuban imports and imported material admitted free as flux, as compiled by Copper Institute.
[2] Refinery stocks of duty-free copper (nearly all domestic), owned by producers at refineries or on consignment, as compiled by Copper Institute.
[3] New contracts made to domestic purchasers of duty-free refined copper (nearly all domestic), as compiled by the United States Copper Association.

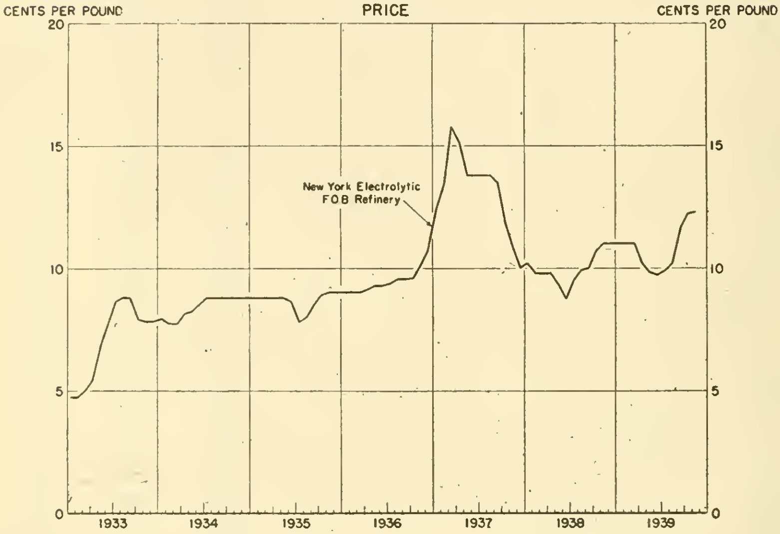
United States production, refinery stocks, and sales of copper, monthly, 1933–1939—Continued

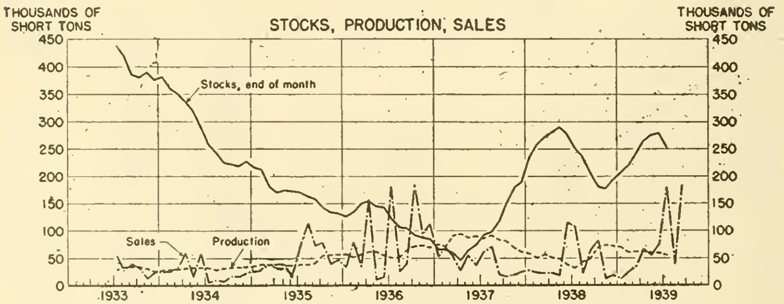
[Short tons]

Year and month	Production	Refinery stocks, end of month	Sales
1935			
April	37,453	169,830	32,756
May	39,583	172,942	29,466
June	33,994	174,075	17,329
July	37,144	170,163	74,408
August	37,000	163,722	114,673
September	40,193	157,836	73,127
October	55,684	143,127	78,270
November	56,071	133,841	39,056
December	56,280	130,614	47,792
Total	506,085		602,044
1936			
January	57,201	125,486	33,898
February	52,303	134,932	80,984
March	57,574	150,479	34,985
April	61,560	154,659	155,911
May	62,100	145,033	11,035
June	55,960	142,194	15,547
July	50,420	121,942	180,374
August	51,961	105,317	23,847
September	66,842	103,559	41,924
October	72,074	91,331	184,424
November	73,978	86,574	93,636
December	69,656	83,517	111,033
Total	731,629		967,598
1937			
January	75,212	67,984	52,976
February	72,023	66,756	70,971
March	91,118	59,443	54,879
April	94,596	46,118	25,382
May	87,579	65,734	56,131
June	89,882	74,145	36,057
July	85,243	90,018	62,454
August	90,947	98,417	71,010
September	83,806	116,412	20,155
October	80,437	149,728	16,574
November	69,446	180,139	18,706
December	61,756	189,702	24,086
Total	982,045		509,381
1938			
January	58,760	229,703	26,468
February	50,704	258,623	22,141
March	56,199	272,666	21,693
April	50,941	280,250	22,855
May	49,125	289,483	17,284
June	38,200	277,070	115,494
July	31,155	251,964	106,109
August	44,608	235,351	21,750
September	49,498	205,782	66,210
October	69,765	181,931	83,929
November	73,205	177,869	11,155
December	72,709	195,561	18,843
Total	644,869		533,931
1939			
January	69,170	206,757	12,497
February	60,707	219,043	23,498
March	61,752	244,494	36,746
April	62,548	265,113	67,214
May	58,600	276,812	54,849
June	59,672	278,684	74,161
July	54,532	252,983	179,103
August	(4)	(4)	[5] 38,299
September			[5] 183,877
October			(4)
November			
December			
Total, seven months	426,981		448,068

[4] More recent data not available.
[5] From United States Copper Association daily sales reports; not precisely comparable with monthly figures.

UNITED STATES DOMESTIC PRICE, STOCKS, PRODUCTION AND SALES OF COPPER
1933-1939





SOURCES: Prices from ENGINEERING AND MINING JOURNAL. Stocks and production from Copper Institute. Sales from United States Copper Association.

EXHIBIT No. 2162

STATE OF NEW YORK,
County of New York, ss:

H. H. WANDERS, being duly sworn, deposes and says that he is employed by the McGraw-Hill Publishing Company, Inc., and has been so employed since March, 1923;

That from 1929 and continuously up to the present time he has been the Market Editor of "Engineering and Mining Journal" and "E & M J Metal & Mineral Markets," which publications are published and wholly owned by the McGraw-Hill Publishing Company, Inc., and has been in charge of compiling price and other market information for the above-named publications;

That for some years past the prevailing method of ascertaining the price of electrolytic copper—domestic and export—as reported weekly in "E & M J Metal & Mineral Markets" and monthly in "Engineering and Mining Journal" has been as follows:

1. Reported prices represent a fair average of first-hand sales transactions in electrolytic copper in the open market which are voluntarily supplied on request to the deponent and one other editor of "Engineering and Mining Journal" by primary producers of copper and agents of such producers. The volume of such sales transactions is a substantial portion of all copper sold in the United States on a competitive basis for domestic and export consumption.

2. We define "primary producers" to mean those who mine and process their own ore, refine and sell their own metal; and those who purchase and process the ores, unrefined copper, and other copper-bearing materials of others, and refine and sell the resulting metal. The primary producers from whom our information is obtained sell approximately 90 percent of all copper sold in the United States market.

3. We define "open market" to mean that part of the market for copper that includes transactions entered into between primary producers and consumers in ordinary business deals. Thus defined, the open market does not include (a) transactions involving resale, or second-hand metal, nor (b) transactions on an exchange where options are purchased and subsequently exchanged for physical metal, nor (c) transfer of copper between primary producers and their fabricating subsidiaries.

4. Data on daily sales of copper, prices obtained, and other market information are collected each Wednesday for the preceding week—Thursday to Wednesday, inclusive—by a personal canvass by two members of the editorial staff of "Engineering and Mining Journal." For this purpose calls are made on the following sellers of copper:

American Metal Company, Limited
American Smelting and Refining Company
Anaconda Sales Company
International Minerals & Metals Corporation
Adolph Lewisohn & Sons
Kennecott Sales Corporation
Phelps Dodge Corporation

5. In addition to calling upon these sellers, the editors of "Engineering and Mining Journal" from time to time call also upon consumers of copper to determine the price level at which the metal can be obtained in the competitive market from primary producers.

6. The daily prices reported for electrolytic copper—domestic and export—are based on the weighted average price of transactions reported by primary producers, and agents of such producers, for each day of the week. The weekly and monthly averages are the arithmetical averages of the daily prices. The annual averages are the arithmetical averages of the monthly averages.

7. "Engineering and Mining Journal" has been publishing copper prices since 1866 as part of its service to the mining industry. These prices are now commonly accepted as accurate and authoritative, and are widely used in business and industry in which such information is an important economic factor; viz., statistical agencies, governmental and private; banks and financial houses; manufacturers of copper and brass products and electrical equipment; dealers in metal, new and second-hand; smelters and refiners of copper, both primary and secondary; and buyers and sellers of copper-bearing ore. They have been specified in union wage agreements with mining companies in which the wage scale is based on the price of copper. They have been introduced as evidence in litigation and

in public utility hearings. They are used in the appraisal of mines and mineral products. They are republished by government bureaus, and appear in numerous economic mineral studies.

H. H. WANDERS.

Sworn to before me this 9th day of January, 1940.

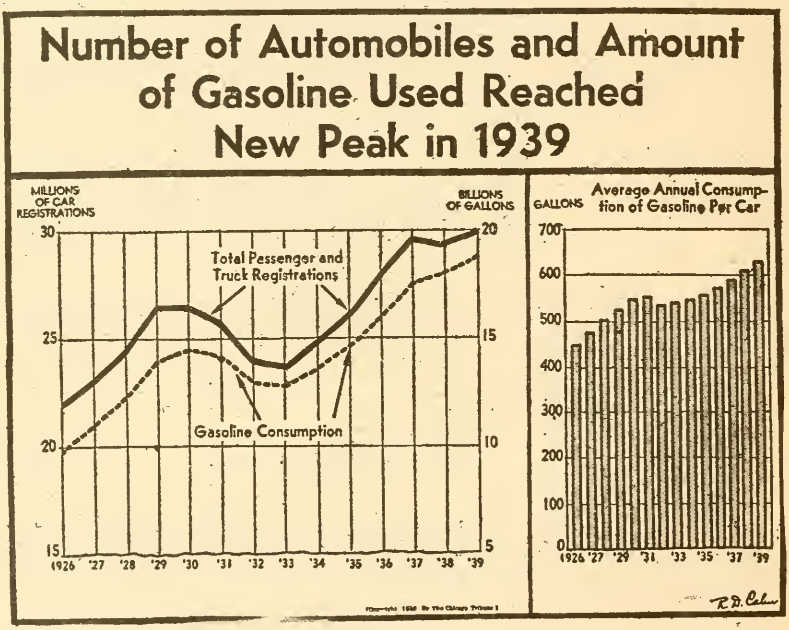
[SEAL] CHESTER W. DIBBLE,
Notary Public.

Commission expires March 30th, 1940.

"EXHIBIT No. 2163," introduced on p. 13261, appears in Hearings Part 23, appendix, p. 12338.

EXHIBIT No. 2164

The following chart is included at this point at the request of the Chairman. See pp. 13260–13261, supra.



AMERICAN SMELTING AND REFINING COMPANY –

COPPER ACCUMULATED IN EXCESS OF WORKING INVENTORY

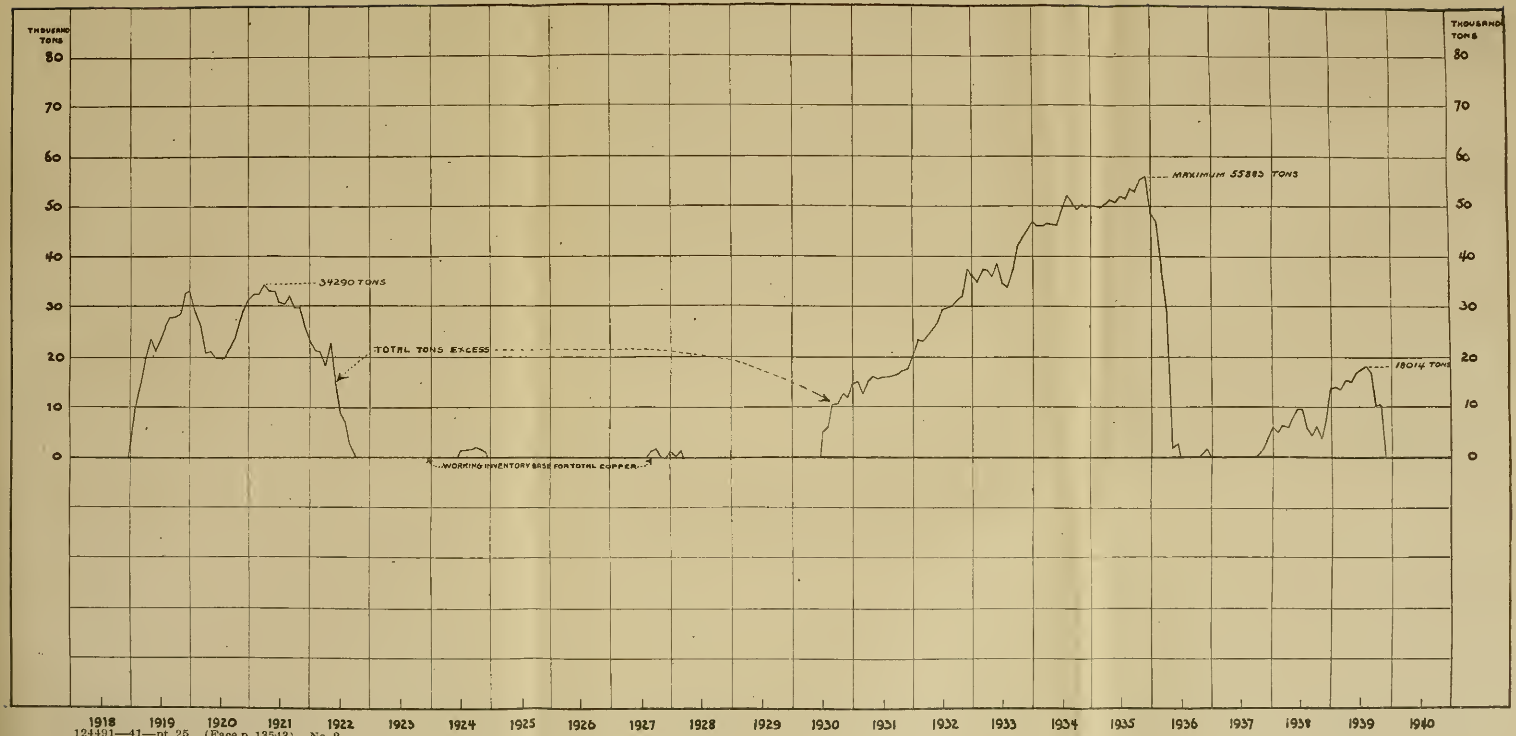


Exhibit No. 2167

AMERICAN SMELTING AND REFINING COMPANY

DOMESTIC LEAD ACCUMULATED IN EXCESS OF WORKING INVENTORY

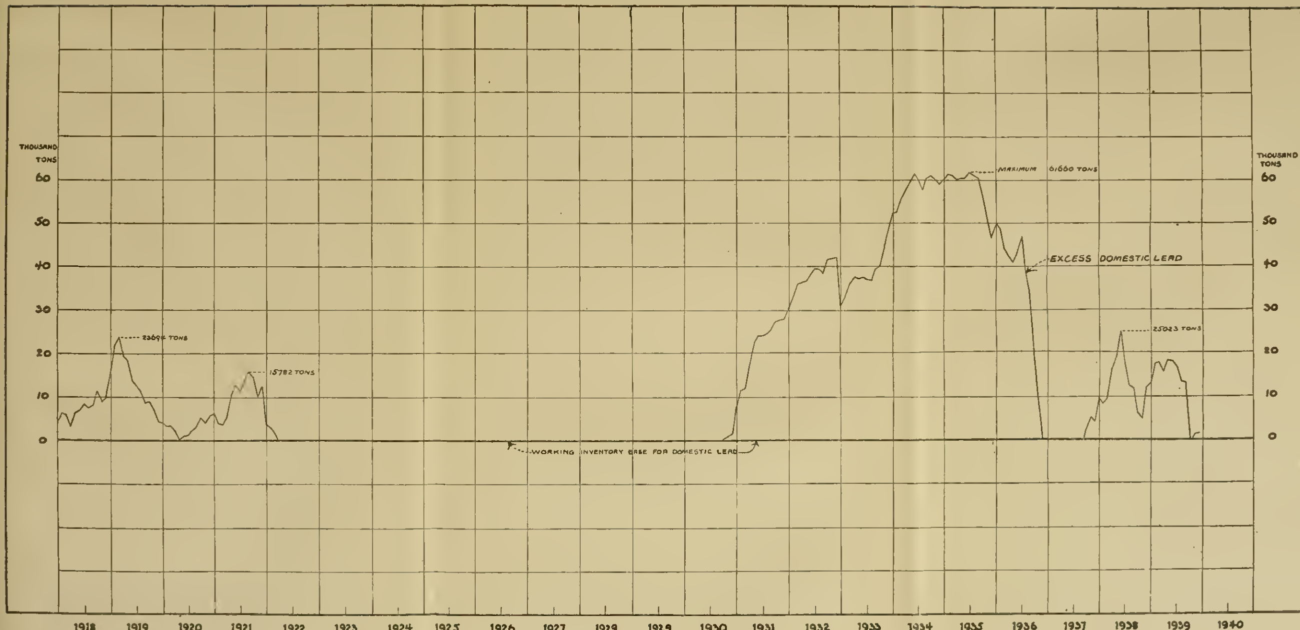


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EXHIBIT NO. 2165

Trading in Copper Futures on the Commodity Exchange, Inc. (New York) Compared With Domestic Direct Sales of Refined Copper by Copper Producers,[1] 1929–1939

[Short tons]

Year	Domestic direct sales by copper producers [2]	Sales on Commodity Exchange, Inc.: Amount	Ratio of sales to direct sales by copper producers	Settlements by delivery of copper	Ratio of settlements to sales
1929	(3)	[4] 6,132	----------	[4] 504	.082
1930	(3)	6,048	----------	280	.046
1931	(3)	19,040	----------	3,024	.159
1932	(3)	34,216	----------	7,504	.219
1933	[5] 190,736	113,568	----------	18,928	.167
1934	284,159	216,748	.763	31,164	.144
1935	602,044	204,008	.339	32,704	.160
1936	967,598	129,500	.134	23,184	.179
1937	509,381	413,700	.812	16,324	.039
1938	533,931	463,624	.868	25,228	.054
1939	(6)	537,880	----------	58,856	.109

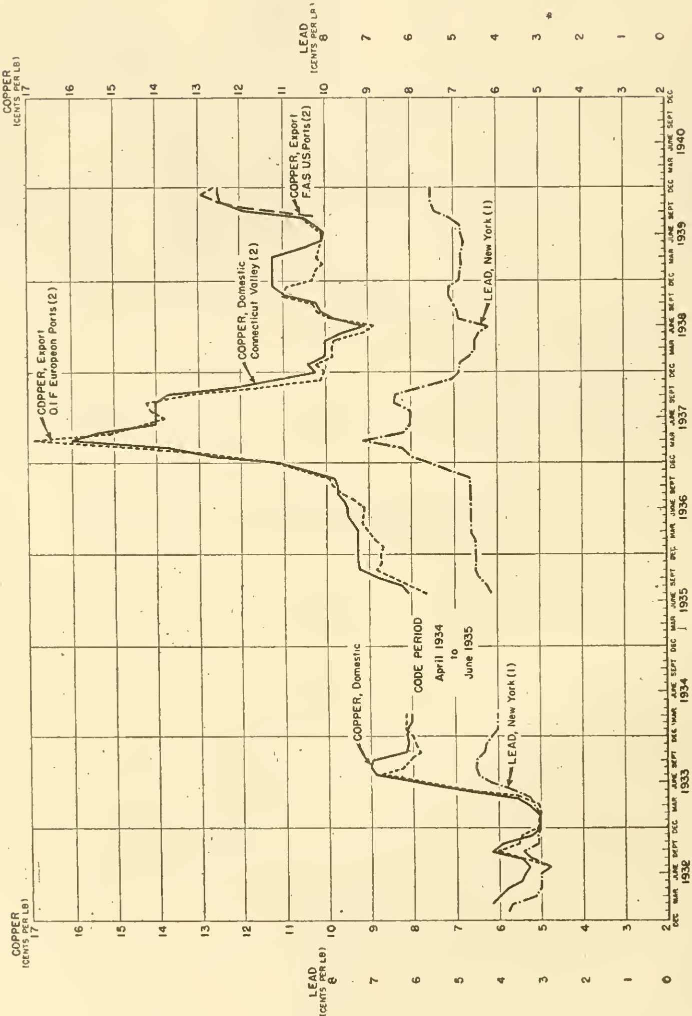
[1] Sold directly to consumers and others.
[2] New contracts made.
[3] Not reported.
[4] Trading inaugurated May 15, 1929.
[5] Last six months of year only.
[6] Data not available.

Source: Prepared by the staff of the T. N. E. C. from figures compiled by United States Copper Association and Commodity Exchange, Inc.

EXHIBITS NOS. 2166 and 2167" face this page

Exhibit No. 2168

COMPARISON OF MONTHLY LEAD AND COPPER PRICES



SOURCE: (1) and (2) ENGINEERING AND MINING JOURNAL

Exhibit No. 2169

Comparison of average price differentials between electrolytic copper and copper wire, copper sheet and high brass sheet for the years 1909–12 inclusive, and the years 1935–38 inclusive as reported in Metal Statistics Year Book of the American Metal Market.

	High Sheet Brass	Elec-tro-lytic	Differ-ential		High Sheet Brass		Elec-tro-lytic	Differ-ential
1909	13.43¢/lb	13.11	0.32	1935	High	14.62½	9.12½	5.50
					Low	13.62½	7.87½	5.75
1910	13.40 "	12.88	0.52	1936	High	17.25	11.87½	5.42½
					Low	14.62½	9.12½	5.50
1911	13.12½ "	12.55	0.57½	1937	High	21.75	16.87½	4.87½
					Low	17.37½	9.87½	7.50
1912	16.67 "	16.48	0.19	1938	High	17.50	11.12½	6.37½
					Low	15.62½	8.87½	6.75

Average Range Differential, 0.19–0.57½. Average Range Differential, 4.87½–7.50.

ZINC PRICES

	High	Low	Average		High	Low	Average
1909	6.50	4.75	5.52	1935	5.32½	4.05	4.70
1910	6.35	5.25	5.66	1936	5.82½	5.12½	5.28
1911	7.00	5.50	5.91	1937	7.85	5.35	6.87
1912	7.65	6.45	7.11	1938	5.44	4.39	4.99
4 year averages	6.87½	5.24	6.05		6.11	4.48	5.46

Note:—High Brass 70% Copper, 30% Zinc.

COPPER WIRE PRICES

Metal Statistics, 1918 Volume, Pages 161 & 243 — 1939 Volume, Pages 301 & 319

	Annual Averages		Differen-tial		Annual Averages		Differen-tial
	Wire	Electro-lytic			Wire	Electro-lytic	
1909	14.85	13.11	1.74	1935	12.13	8.88	3.25
1910	14.40	12.88	1.52	1936	12.96	9.71	3.25
1911	13.81	12.55	1.26	1937	17.26	13.39	3.87
1912	17.48	16.48	1.00	1938	13.87	10.22	3.65
Average	15.13	13.75	1.38	Average	14.05	5.55	3.50

COPPER SHEET PRICES

Metal Statistics, 1913 Volume, Pages 161 & 163 — 1939 Volume, Pages 301 & 327

	Annual Averages		Differen-tial		Annual Averages		Differen-tial
	Copper Sheet	Electro-lytic			Copper Sheet	Electro-lytio	
1909	17.25	13.11	4.14	1935	15.62½	8.88	6.74½
1910	17.88	12.88	5.00	1936	17.81¼	9.71	8.10
1911	17.30	12.55	4.75	1937	21.92¼	13.39	8.53¼
1912	21.50	16.48	5.02	1938	18.25	10.22	8.06
Average	18.48	13.75	4.73	Average	18.40	10.55	7.85

Comparison of average price differentials between electrolytic copper and copper wire, copper sheet and high brass sheet for the years 1909–12 inclusive, and the years 1935–38 inclusive as reported in Metal Statistics Year Book of the American Metal Market—Continued

SUMMARY

Differentials between average prices of Electrolytic Copper from Refinery and Copper Wire, Copper Sheet and High Brass Sheet for years 1909–1912 inclusive and 1935–1938 inclusive

DIFFERENTIALS OVER ELECTROLYTIC

Year	Copper Wire	Copper Sheet	High Brass Sheet
1909	1.74¢/lb.	4.14¢/lb.	0.32¢/lb.
1910	1.52 "	5.00 "	0.52 "
1911	1.26 "	4.75	0.57½ "
1912	1.00	5.02	0.19 "
Average	1.38 "	4.73 "	0.40⅛

Average Zinc Price 6.95.

Year	Copper Wire	Copper Sheet	High Brass Sheet
1935	3.25¢/lb.	6.74½¢/lb.	5.62½¢/lb.
1936	3.25 "	8.10 "	5.45¾ "
1937	3.87 "	8.53¼ "	6.18¾ "
1938	3.65 "	8.06 "	6.56¼ "
Average	3.50½ "	7.86 "	5.95 "

Average Zinc Price 5.46/¢
Note: High Brass (67% Cu—33% Zn)

EXHIBIT No. 2169–A

ECONOMIC HISTORY OF THE COPPER INDUSTRY—ESTIMATED WORLD RESERVES OF COPPER

By Arthur Notman, Consulting geologist, New York City

(From "Copper Resources of the World", XVI International Geological Congress, Washington, 1933)

Copper is an indestructible metal. Practically all that has been mined from the earth's crust is still in use or might be reclaimed for re-use.

The world's recorded production since 1801 has been 48,000,000 short tons, of which five-eighths was produced in the last 22 years and three-eighths in the last decade. Of this recorded production, the United States has contributed about half, and 95 percent of that has come from 15 districts in 9 States. Of the foreign fields, South America has four areas, three in Chile and one in Peru. Canada has six, Mexico three, Africa four, and the remainder of the world about a dozen. It would be safe to say that all the copper so far mined has come from beneath an aggregate area of the earth's surface of less than 100 square miles. No important producing district in the world has yet been exhausted.

This high degree of concentration has led to a similar and even greater concentration of ownership. As we shall see later, 24 corporations have supplied three-fourths of the world's output in the last 7 years, and 14 with their subsidiaries have supplied 64 percent.

The estimated known reserves of metal in the ground are about 100,000,000 tons, more than twice the amount the world has consumed in the last 132 years. This total cannot be regarded as a possible or probable limit but merely records the current estimate of known reserves of metal contained in material from which it can be profitably extracted by present methods at normal prices. It is capable of practically indefinite expansion by the factors of technologic advance and higher price, as well as the discovery of new deposits. Of these reserves 85 percent is owned by eight corporations. Nearly 40 percent is owned by the three largest copper groups in the United States, about evenly divided between their properties in the United States, Mexico, and South America. One corporation in Canada and three in Africa own another 40 percent. The controlling interest in these African units rests with British Empire capital, but probably 40 percent is at present in American hands. About a 50 percent interest in the Canadian

corporation is also American-owned. The remaining unit in Africa is controlled by the Belgian Government, with about 35 percent minority interest in British hands.

This extraordinary concentration of ownership, of both current and future supplies, has not prevented the industry from suffering wide fluctuations in earning power and employment. This is strikingly illustrated by the fact that the securities of a group of American-owned companies in North and South America which produced 60 percent of the world's total output during the 12-year cycle from the lows of 1921 to the lows of 1932 were valued in the open market in 1921 at $700,000,000, at the highs of 1929 at $3,350,000,000, and at the lows of 1932 at $222,000,000. (See table 3.) The monthly average New York price for electrolytic copper rose from 11.50 cents a pound in 1921 to a peak of 23.87½ cents a pound in March, 1929, and declined to an all-time low of 4.87½ cents in 1932. The annual production of these companies was 260,000 short tons in 1921, 1,250,000 tons in 1928, and 440,000 tons in 1932. (See table 1.)

The creditors and owners of these companies received in interest and dividends some $19,200,000 in 1921, $150,400,000 in 1929, $8,400,000 in 1932, and $5,500,000 in 1933. The annual average for the 12-year period was $65,000,000. During the last 30 years the average cost of establishing copper production in North and South America—that is, to acquire properties, develop and equip mines, mills, smelters, and refineries, produce electrolytic or fire-refined copper, and provide adequate working capital—has been about 30 cents per pound of annual capacity. The aggregate cash investment of the particular group we have been considering has been about $750,000,000. An annual average return of $65,000,000 over the 12-year cycle from 1921 to 1932 does not suggest that the industry has been the victim of cut-throat competition. On the contrary, more real price competition and less attempted price stabilization would undoubtedly have averted much of the present overdevelopment and profitless production.

Employment showed similar wide fluctuations. Copper mines, mills, and smelting plants in the United States employed about 45,000 men in 1929, as compared with 13,000 in 1932 and about 12,000 in the first quarter of 1933. The increase in employment from 1919 to 1929 was less than 2 percent, while production increased 70.0 percent. This affords some measure of the technologic advances in the industry, which have been a major factor in increasing the known reserves of metal in the ground by making available for profitable extraction lower-grade material.

Such changes in the condition of the employees and owners of the copper industry point directly to the pursuit of policies tending to accentuate the cyclic character of the industry rather than to mitigate it. This character arises from the fact that some 70 percent of the industry's product goes into producer's goods and the balance only into consumer's goods, though all of the latter are of a more or less permanent character. The electrical industries take 50 to 55 percent of the output. The building trades, automotive industry, and household equipment absorb another 18 to 21 percent; manufactures for export about 7 percent. Fully 70 percent of the consumption, therefore, rises and falls with the rise and fall of activity in expanding facilities for production. Except in the electrical fields, copper must meet severe competition on the basis of price and service from other metals and a rapidly growing list of alloys. Even in the field of electrical transmission it encounters strong competition from aluminum.

Because of the great concentration of ownership, the apparent security of the demand for copper in the electrical field, and the wide fluctuations in demand for producer's goods, the industry has been especially vulnerable to monopolistic and speculative practices. Repeatedly, policies appear to have been based on the theory that the world must have copper regardless of price and, therefore, if the supply could be controlled, it would be possible to establish almost any price—and a corresponding profit. To name the outstanding attempts at control in the past, we have the French, or Secretan Syndicate of 1887, the Amalgamated Pool of 1889 and that of 1907, the Copper Export Association pool of 1920, and the Copper Exporters, Inc., of 1928–30. These pools, particularly the latest, were temporarily successful in raising prices and profits to high levels. Inevitably, however, the structure crumbled away under the weight of unsold metal and the ability of the consumer to cease purchasing material for enlarging his facilities when prices become too high. Usually these attempts have synchronized with prophecies of pending world shortage of copper. They greatly stimulated the search for new sources of supply and cheaper methods of extraction and rendered easy the task of obtaining the capital needed to exploit these discoveries. The causal relations between these pools and the speed of

development of the various important additions to known supplies in the last 40 years can readily be traced—Morenci, Bisbee, Globe, and Jerome in Arizona in the nineties; "porphyries" in Utah, Arizona, Nevada, and New Mexico in the first decade of this century; the South American "porphyries" and the Belgian Congo in the second decade; and the Rhodesian and Canadian deposits in the third. Partly as a result of these stimuli the United States is now equipped to produce 1,200,000 tons of refined copper a year, and the rest of the world 1,500,000 tons. The actual consumption in 1932 was 336,000 tons in the domestic market and 741,000 tons in the foreign market. With very little additional capital the aggregate capacity of the world could be increased to 3,000,000 tons, 50 percent more than the peak consumption of 1929 and almost three times that of 1932. But it is likely to be a long time before there is a resumption of public investment in the development of new sources of copper supply. Barring some possible but unanticipated invention that may expand or contract the uses of copper, this reluctance on the part of capital will presently restore the balance of supply and demand and a normal margin of profit to the industry.

The collapse of prices after the World War stressed the search for cheaper methods, and A. B. Parsons has brought out very clearly the success of this campaign in a book published recently by the American Institute of Mining and Metallurgical Engineers, entitled "The porphyry coppers." Parsons cites the facts that the Utah Copper Co. produced copper for about 6½ cents a pound in 1928 from ores yielding only 17 pounds to the ton, and that if the company had been compelled to use the equipment and methods available to it in 1916, while carrying the increased wages, costs of supplies, and taxes of 1928, the copper would have cost 12¼ cents instead of 6½ cents. From 1921 the industry slowly recovered from the postwar collapse, and by 1927 profits had steadily increased to a point that might be regarded as normal, at a much lower level of cost and price.

Despite the discovery and active development of probably the greatest known copper deposit in the world, that of Northern Rhodesia, in central Africa, the addition of the Andes Copper Co. to the list of large producers in South America, and the exploitation of the Frood copper-nickel deposit of the International Nickel Co. of Canada and the copper deposits of the Noranda and the Hudson Bay companies, the price of electrolytic copper rose rapidly from 13.8½ cents a pound in the second half of 1928 to 23.87½ cents a pound early in March, 1929, in spite of the fact that on December 1, 1928, the stocks of unsold metal had shown the first increase in 9 months. In March the price slipped back rapidly to 18 cents where it was resolutely held, in spite of rapidly growing stocks, until April, 1930.

It is important to realize that copper consumption had started to decline even before the peak of prices was reached, and that the price had been held to 18 cents for 15 months after the collapse of the security market in October, 1929. Production was cut, only to have consumption decrease still faster. Finally, in April, 1930, under the pressure of rising cost and inventory, the structure cracked and crumbled. The world did not have to have copper at 18 cents, or 14, or 12, or 10, or 8, or even at 6 cents, when the consumer could see that there was a greater quantity for sale than could be absorbed and that this supply was being constantly increased. In other words, there was far more copper available than people could buy.

The three largest units of the domestic industry of the United States are partly or completely integrated vertically from mine to consumer and in addition are heavily interested in foreign production. Two other large units are partly or completely integrated through smelting, refining, and fabricating. In addition, secondary metal from scrap, both that arising from the fabrication of virgin copper and that from the demolition of old installations, is handled by several plants, including those already referred to. One of these units is also largely interested in foreign production.

The financial history of the copper industry strongly suggests that up to date there has been one element of marked stability—namely, that portion of the selling price that has been available for distribution to creditors and owners as interest and dividends. In spite of wide fluctuations over brief intervals, the tendency has been for this figure to return to a normal, measured over any material period. Perhaps this denotes the economic profit which the industry has needed in the past to maintain it in sound condition, able and ready to attract the necessary capital to increase its capacity to supply growing demand. (See tables 1–4.)

As can be seen, all attempts to exact profits in excess of this normal have at the best succeeded only temporarily, to be followed by prolonged periods of depression and slow recovery, which brought the average back to normal. If the future normal could be expected to accord with that of the past, it would be

simple to conclude that the peaks and troughs of employment and earnings could be greatly mitigated through a control based on maintaining the average profit of the past. At least the fluctuations might be reduced to those inherent in any industry whose product is primarily producer's goods, purchased freely only in times of expansion of productive facilities.

The temporary successes of these attempts to maintain abnormal profits, however, have so stimulated the search for and development of new sources of supply that the world now has greater known reserves of metal in the ground and greater existing capacity to produce in proportion to current needs than ever before in its history. In addition, the constantly growing volume of metal above ground available for re-use, as present structures and machines become obsolete, increases the ease with which new demand can be met.

The development of economic nationalism, whether arising from the natural instinct to survive, or the instinct of groups to prosper beyond their fellows, or the fear of a lack of the necessities for war in case of attack, tends to expand available supplies and facilities for processing. The imposition of tariffs by various countries bears witness to this fact.

The constant development and extension of the use of alloys possessing special properties for special services is steadily increasing competition. The obvious approach of saturation in the domestic market for coal and for iron ores as a raw material of the steel industry for similar reasons points to a like fate for the nonferrous metals.

Under the probable conditions of the future, continuation of those policies of the past, in which price maintenance has been the keynote, cannot fail to bring greater troughs of unemployment and greater loss of earnings and capital than have yet been experienced. The path of prudence calls, therefore, not for any attempt to obtain the average profit margin of the past but to work frankly for a substantially lower margin by establishing controls that will restrict output whenever that margin tends to decrease or disappear and permit free increase of output whenever it returns. A free price will work in harmony with and reinforce such control rather than in opposition to it. To reestablish a free market at a profitable level, the first essential is the reduction of stocks of unsold metal. To accomplish this as rapidly as possible, the price level must be prevented from rising high enough to interfere with this reduction by inducing increased output.

The following tables give numerous details concerning the operations of the leading companies.

TABLE 1.—*Average cost of producing copper, 1926–32*

Company	Production (pounds)	Calculated earnings		Selling price per pound (cents)	Cost per pound (cents)
		Total	Per pound (cents)		
Anaconda (Butte)	1,401,802,000	$43,530,996	3.34	13.32	9.98
Andes	491,367,270	20,225,592	4.45	14.50	10.05
Chile	1,424,154,920	71,358,461	5.01	13.14	8.13
Greene Cananea	273,140,336	5,687,117	2.06	12.41	10.35
Inspiration	501,043,445	8,744,881	1.74	13.04	11.30
Calumet & Hecla	623,907,470	18,798,383	3.01	13.63	10.62
Cerro de Pasco	596,110,000	19,231,133	3.23	12.96	9.73
Copper Range	132,928,914	2,050,051	1.54	13.51	11.97
Kennecott (Utah, Braden, Alaska)	2,821,725,525	158,088,942	5.49	13.35	7.86
Nevada Consolidated	1,317,461,967	36,040,996	2.74	12.92	10.18
Mother Lode	95,669,460	4,679,044	4.89	13.46	8.57
Phelps Dodge	1,877,028,141	44,617,616	2.38	13.01	10.63
Granby	316,211,461	12,915,634	4.08	13.77	9.69
Magma	222,277,090	8,528,337	3.84	12.73	8.89
Miami	348,939,166	5,478,536	1.57	13.51	11.94
Mohawk	88,533,816	5,047,541	5.70	14.10	8.40
Old Dominion	107,954,571	−1,106,107	−1.02	13.30	14.32
United Verde Extension	282,064,058	13,975,177	4.96	13.48	8.52
	12,925,320,000	477,893,340	3.69	13.27	9.58
Noranda	286,222,934	17,630,254	6.16	11.38	5.22
Hudson Bay	75,598,000	2,961,631	3.92	6.84	2.92
Katanga	1,501,192,980	28,957,775	1.93	13.20	11.27
Grand total	14,788,334,000	527,443,000	3.56	13.19	9.63

NOTE.—The subtotal gives the production controlled by nationals of the United States. The grand total represents 64.14 percent of the world's production for the 7 years.

In the foregoing table earnings have been calculated on the basis of aggregate interest and dividends paid out, plus or minus any increase or decrease in net current assets, plus any cash investments from earnings in increased facilities to produce or in the securities of other copper-producing companies, less any interest and dividends received from other copper-producing companies and any cash received from the sale of new capital issues. Profits from the production of other metals, as gold, silver, lead, and zinc, have all been credited to the cost of copper. Similarly profits from custom smelting, refining, and manufacturing enjoyed by certain of the companies have also been credited to the cost of copper. Where the investment in such facilities has been wise, it has improved the competing power of the unit in the industry; where unwise, it has proved a handicap. The results are not different in kind from those inherent in higher copper or higher precious-metal contents of their ores than those of their competitors.

Table 2 gives the same data for the operations in the United States of the companies listed in table 1.

TABLE 2.—*Average cost of producing copper in the United States, 1926–32*

Company	Production (pounds)	Calculated earnings		Selling price per pound (cents)	Cost per pound (cents)
		Total	Per pound (cents)		
Anaconda (Butte)	1,401,802,000	$43,530,996	3.34	13.32	9.98
Inspiration	501,043,445	8,744,881	1.74	13.04	11.30
Kennecott (Alaska)[1]					9.50
Utah	1,396,826,000	75,398,000	5.40	13.35	7.95
Nevada Consolidated	1,317,461,967	36,040,996	2.74	12.92	10.18
Phelps Dodge	1,877,028,141	44,617,616	2.38	13.01	10.63
Calumet & Hecla	596,110,000	19,231,133	3.23	12.96	9.73
United Verde Extension	282,064,058	13,975,177	4.96	13.48	8.52
Magma	222,277,090	8,528,337	3.84	12.73	8.89
Miami Copper	348,939,166	5,478,536	1.57	13.51	11.94
Copper Range	132,928,914	2,050,051	1.54	13.51	11.97
United Verde [1]					9.50–9.75
	8,076,480,781	257,595,723	3.19	13.14	9.95
Operations outside of the United States, including foreign companies	6,712,000,000	265,286,000	3.95	13.42	9.47

Details not available; figure given is probable average cost.

NOTE.—Phelps Dodge figures include those of its Mexican property (Moctezuma Copper), whose costs were probably slightly higher than the average. Anaconda and Phelps Dodge figures include manufacturing profits and some custom smelting and refining profits. Kennecott figures include manufacturing profits.

TABLE 3.—*Market value of securities and yield, 1920–32*

Year	Year-end market value of securities (000,000 omitted)	Yield based on interest and dividend payments (percent)	Year	Year-end market value of securities (000,000 omitted)	Yield based on interest and dividend payments (percent)
1920 (lows)	$700	1.74	1927	$1,144	7.12
1921	913	2.10	1928	2,439	3.88
1922	876	2.64	1929 (highs)	3,351	4.76
1923	959	6.43	1929	1,803	8.84
1924	1,160	4.74	1930	754	11.93
1925	1,142	5.67	1931	334	9.67
1926	1,140	6.58	1932 (December 29)	222	2.35

NOTE.—Companies included are Anaconda, Andes, Chile, Greene, Inspiration, Calumet & Arizona, Phelps Dodge, Kennecott, Nevada, Mother Lode, Calumet & Hecla, Cerro, United Verde, United Verde Extension, Granby, Miami, Magma, Mohawk, Old Dominion, and Copper Range. The figures for market value have been adjusted for duplications due to ownership of securities by other members of the group. All fixed obligations have been valued at par.

Table 4 gives similar data to tables 1 and 2 for a large section of the United States owned industry in North and South America, including the following companies: Anaconda, Andes, Chile, Greene, Inspiration, Kennecott, Utah, Nevada, Mother Lode, Braden, Phelps Dodge, Calumet & Arizona, Cerro de Pasco, Copper Range, Granby, Magma, Miami, Mohawk, Old Dominion, United Verde, and United Verde Extension. These figures include only interest and dividends paid, adjusted for any duplication of dividends but not adjusted for changes in net current assets, etc., as in tables 1 and 2.

TABLE 4.—*Selling price and interest and dividends paid by certain companies, 1921–32*

Year	Production (pounds) (000 omitted)	Average selling price per pound (cents)	Bond interest and dividends paid		Percent of average selling price paid out in bond interest and dividends
			Total (000 omitted)	Per pound (cents)	
1921	520, 100	12. 50	$19, 200	3. 69	29. 5
1922	1, 064, 000	13. 38	23. 100	2. 17	16. 2
1923	1, 581, 000	14. 42	61. 700	3. 90	27. 0
1924	1, 924, 000	13. 02	55, 000	2. 75	19. 6
1925	2, 030, 000	14. 04	64, 600	3. 13	22. 6
1926	2, 114, 000	13. 86	75, 000	3. 55	25. 7
1927	2, 156, 900	12. 92	82, 500	3. 82	29. 6
1928	2, 496, 500	14. 57	94, 900	3. 85	26. 4
1929	2, 440, 800	18. 11	159, 400	5. 93	32. 7
1930	1, 888, 600	12. 98	95, 600	4. 97	38. 3
1931	1, 702, 400	8. 116	41, 300	2. 43	29. 9
1932	882, 200	5. 555	8, 400	. 95	17. 1
	21, 100, 400	13. 52	780, 700	3. 70	27. 3

Table 5 gives similar figures for the Michigan industry for 1861–1910, and table 6 gives similar figures for the same companies as table 4 for 1911–32.

TABLE 5.—*Selling price and interest and dividends paid by Michigan copper industry, 1861–1910*

Period	Production (pounds) (000 omitted)	Average selling price per pound (cents)	Bond interest and dividends paid		Percent of average selling price paid out in bond interest and dividends
			Total (000 omitted)	Per pound (cents)	
1861–65	68, 605	33. 58	$3, 080	4. 48	13. 4
1866–70	103, 448	24. 48	1, 290	1. 24	5. 1
1871–75	150, 965	25. 58	10, 910	7. 22	28. 2
1876–80	211, 375	18. 70	10, 449	4. 95	26. 5
1881–85	312, 208	15. 18	11, 482	3. 68	24. 2
1886–90	433, 005	13. 75	12, 615	2. 91	21. 2
1891–95	593, 666	10. 75	15, 980	2. 69	25. 0
1896–1900	721, 829	13. 84	38, 403	5. 32	38. 4
1901–5	957, 136	14. 30	30, 574	3. 19	22. 3
1906–10	1, 121, 800	15. 77	45, 499	4. 06	25. 7
	4, 674, 037	15. 21	180, 302	3. 86	25. 4

TABLE 6.—*Selling price and interest and dividends paid by United States owned industry in North and South America, 1911–32*

Period	Production (pounds) (000 omitted)	Average selling price per pound (cents)	Bond interest and dividends paid		Percent of average selling price paid out in bond interest and dividends
			Total (000 omitted)	Per pound (cents)	
1911–15	5,420,000	15.37	$202,860	3.74	24.3
1916–20	8,250,000	23.35	520,140	6.30	27.0
1921–25	7,119,100	13.64	223,600	3.14	23.0
1926–30	11,396,700	14.88	507,400	4.47	30.0
	32,185,800	16.86	1,454,000	4.52	26.8
1931	1,702,400	8.116	41,300	2.43	29.9
1932	882,200	5.555	8,400	.95	17.1
	34,770,400	16.14	1,503,700	4.30	26.6
Omitting war period (1916–20)	26,520,400	13.93	982,560	3.70	26.6

Study of these data, particularly those covering the complete price cycle from 1921 lows to 1932 lows in table 2, offers convincing evidence that an average margin of 3.25 cents a pound in real earnings for the United States industry and 3.75 cents for the world industry as a whole is about all that it can be expected to earn and is what is needed to sustain it in a sound condition.

TABLE 7.—*Investment in mine development, plant, and equipment and net working capital of North and South American copper companies, December 31, 1929*

Company	Ore mined, 1929 (tons)	Copper produced, 1929 (pounds)		Investment in mine development, plant, and equipment			
		Actual output	Rated capacity (000,000 omitted)	Total	Per ton of ore mined	Per pound of actual output (cents)	Per pound of rated capacity (cents)
Andes	8,000,000	162,663,775	200	$49,746,353	$6.20	30.6	24.9
Braden [1]	4,223,856	156,758,171	200	38,791,843	9.28	24.7	19.4
Chile	11,000,000	299,575,752	375	59,611,427	5.42	20.0	16.0
Calumet & Arizona	4,428,746	130,486,607	140	18,249,620	4.12	14.0	13.0
Inspiration	5,773,858	107,516,201	120	40,739,288	7.06	37.8	34.0
Miami	5,017,983	58,841,159	75	14,600,000	2.91	24.8	19.5
Nevada	12,888,289	266,274,918	350	58,278,185	4.52	21.9	16.6
Noranda	428,221	51,625,478	65	10,418,203	2.43	24.3	16.0
Phelps Dodge	4,604,716	218,360,613	240	44,469,934	9.66	20.4	18.5
Utah Copper	17,724,100	296,274,918	375	48,500,000	2.74	16.4	12.9
	74,089,000	[2]1,748,378,000	2,140	[3]383,404,900	[3]5.17	[3]21.9	17.9

See footnotes at end of table.

TABLE 7.—*Investment in mine development, plant, and equipment and net working capital of North and South American copper companies, December 31, 1929—Con.*

Company	Net working capital				Total investment		
	Total	Per ton or ore mined	Per pound of actual output (cents)	Per pound of rated capacity (cents)	Per ton of ore mined	Per pound of actual output (cents)	Per pound of rated capacity (cents)
Andes	$1,656,007	$0.20	1.0	0.8	$6.40	31.6	25.7
Braden [1]	[1] 13,371,000	3.16	8.5	6.7	12.44	33.2	26.1
Chile	19,280,178	1.75	6.4	5.1	7.17	26.4	21.1
Calumet & Arizona	8,485,891	1.92	6.5	6.1	6.04	20.5	19.1
Inspiration	6,697,505	1.15	6.2	5.6	8.21	45.0	39.6
Miami	6,147,311	1.22	10.4	8.2	4.13	35.2	27.7
Nevada	28,039,692	2.18	10.3	8.0	6.70	32.2	24.6
Noranda	5,204,295	1.22	10.1	8.0	3.65	34.4	24.0
Phelps Dodge	32,241,677	7.00	14.8	13.4	16.66	35.2	31.9
Utah Copper	28,007,559	1.58	9.4	7.5	4.32	25.8	20.4
	[4] 149,140,000	1.96	8.5	6.9	[3 4] 7.13	30.4	24.8

[1] Latest available figures are for 1924, but at that time Braden was borrowing its working capital from Kennecott, and the working capital shown is taken at the average figure per pound of the group.
[2] The average copper recovered per ton treated by the group was 23.67 pounds.
[3] Certain additions should be made to this figure to cover the cost of smelting and converting facilities for Inspiration, Miami, Utah, and two-thirds of Nevada. This would bring the total to about $400,000,000, or $5.39 per ton and 22.9 cents per pound of actual output in 1929. The total product would then be ready for market as blister copper except part of that from Andes and Calumet & Arizona and all of that from Chile, which would be electrolytic, and Braden, which would be "best select casting copper." To provide refining facilities for the blister copper would require an additional investment of about $30,000,000 in plant, bringing the total to $430,000,000, or $5.79 per ton and 24.6 cents per pound.
[4] The history of the industry clearly shows that to be in comfortable position and avoid undesirable borrowing, net working capital should equal 1 year's cost before depreciation and depletion. In 1929 this cost was about 8.5 cents per pound for the group given in the table.

Table 7 shows the actual cash investment in mine development, plant, equipment, and working capital which the industry has made. An annual return of 3.25 cents a pound on an investment of 30 cents a pound of annual capacity, to return capital with interest and profit, is a fair yield. As a matter of fact, at the present moment (July, 1933) the industry is valued on the securities market at about 30 cents a pound of annual capacity. Obviously it is not earning any such return under existing conditions, but the investing and speculating public apparently believe that, as in the past, it will return to that level.

TABLE 8.—*Employment by principal United States copper producers, 1927, 1929, and 1931, and by largest producers, 1932*

Year	Mines		Mills and smelters		Total	
	Average number of men employed	Man-shifts worked	Average number of men employed	Man-shifts worked	Average number of men employed	Man-shifts worked
1927	22,384	7,436,021	11,173	3,967,820	33,557	11,403,841
1929	31,278	10,287,597	13,417	4,753,307	44,695	15,040,904
1931	19,687	5,075,862	12,791	3,912,979	32,478	8,988,841
1932	8,546	2,092,721	4,584	898,979	13,130	2,991,700

Estimated World Reserves of Copper

By Arthur Notman
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In considering the amount of known reserves of copper in the world, the most significant fact is that no important copper-producing area has yet been exhausted. The Spanish district Rio Tinto, known to have produced from the days of the Phoenicians, is still active. The Mansfeld area, in Germany, has a recorded production extending continuously from the 13th century. In Cornwall, though production has ceased, substantial amounts of copper are still known to exist, but the metal cannot be produced in competition with that from more favorable areas. The reduction in the average grade of ore that can be treated has played and will continue to play an important part in expanding reserves of recoverable copper of the world.

There is wide room for choice in defining reserves of metal in the ground, but certain general limitations are readily recognizable. The human race has a real curiosity about the total amount of copper contained in the earth, but practically it is mainly concerned as to where copper can be obtained most readily, in what amount, and at what cost. Secondly, it is concerned as to the relation between known supplies and its current and prospective needs; and thirdly, as to whether the known reserves are keeping pace with consumption—that is to say, whether it is finding more or less new reserves than it is consuming. To answer these questions briefly for the moment, it may suffice to say that the known reserves of copper are probably greater now with respect to current consumption, or even the maximum rate of 1929, than at any previous period in the world's history—certainly greater than at any time in the last century. Discovery has far more than kept pace with rapidly increasing demand. This is borne out by the recent tendency to restrict the movements of the metal in world trade by tariff regulation.

There are four major known sources of supply in the world at present. In the order of their importance as gaged by past production they are (1) the Rocky Mountain and Great Basin area of the United States; (2) the west slope of the Andes in Peru and Chile; (3) the central plateau of Africa in the Belgian Congo and Northern Rhodesia; (4) the pre-Cambrian shield area of central Canada and its extension into northern Michigan. These areas contain about 95 percent of the total known reserves.

Table 1, prepared by the American Bureau of Metal Statistics, gives the latest official estimate of reserves of most of the principal copper-producing companies of the world.

Table 1.—*Copper-ore reserves as officially reported*

Company	Situation of mines	Ore reserves				Copper produced in 1929 (tons) [1]
		Year	Ore (tons)	Average grade (percent)	Copper (tons)	
United States and Mexico:						
Bagdad	Arizona	1930	48,000,000	1.20	576,000	
Consolidated Coppermines.	Nevada	1932	35,000,000	1.10	385,000	11,366
Inspiration	Arizona	1932	69,010,770	1.37	945,500	53,654
Miami	Arizona	1933	85,439,180	.96	817,500	29,421
Nevada Consolidated	Nevada, New Mexico, and Arizona.	1930	300,000,000	1.47	4,410,000	133,137
Old Dominion	Arizona	1931	2,000,000	2.00	40,000	9,472
Phelps Dodge	New Mexico, Arizona, and Mexico.	1932	388,146,550	1.13	4,386,100	173,195
United Verde Extension.	Arizona	1931	360,000	[2] 7.00	25,200	29,589
Utah	Utah	1930	640,000,000	1.07	6,848,000	148,313
Canada:						
Abana	Quebec	1930	477,200	2.70	12,900	
Falconbridge	Ontario	1932	2,920,457	.93	27,200	
Granby Consolidated	British Columbia	1931	14,062,761	1.81	254,500	30,427
Hudson Bay	Manitoba	1930	18,000,000	1.71	307,800	
International Nickel	Ontario	1932	203,909,973	[2] 2.00	4,078,200	[3] 35,000
Noranda	Quebec	1933	22,450,000	2.77	622,800	25,813

[1] The production in 1929 is given in order to afford an idea of the number of years of prospective production, the 1929 rates being given as more or less representative of the maxima.
[2] Approximate.
[3] Estimated.

TABLE 1.—*Copper-ore reserves as officially reported*—Continued

Company	Situation of mines	Ore reserves				Copper produced in 1929 (tons)
		Year	Ore (tons)	Average grade (percent)	Copper (tons)	
Canada—Continued.						
Sherritt-Gordon	Manitoba	1932	4,800,000	2.50	120,000	
Waite-Ackerman-Montgomery.	Quebec	1931	467,350	6.00	28,000	1,100
Cuba and South America:						
Matahambre Mines	Cuba	1932	996,396	4.75	47,300	15,740
Andes	Chile	1924	137,400,000	1.51	2,074,700	81,332
Braden	Chile	1931	225,996,000	2.18	4,926,700	88,163
Chile Exploration [4]	Chile	1921	688,629,889	2.12	14,599,000	149,788
Africa:						
Katanga	Belgian Congo	1930	85,979,000	6.41	5,512,000	151,006
Baluba	Northern Rhodesia	1931	21,000,000	3.47	728,700	
Chambishi	Northern Rhodesia	1931	25,000,000	3.46	865,000	
Kansanshi	Northern Rhodesia	1931	8,000,000	4.50	360,000	
Mufulira	Northern Rhodesia	1931	116,000,000	4.41	5,116,000	
N'Changa [5]	Northern Rhodesia	1932	141,780,000	4.63	6,564,400	
N'Kana [5]	Northern Rhodesia	1932	127,000,000	4.00	5,080,000	
Chingola [5]	Northern Rhodesia	1932	2,000,000	7.00	140,000	
Roan Antelope	Northern Rhodesia	1931	108,000,000	3.44	3,715,200	
Messina	Transvaal	1932	1,325,433	2.61	34,600	7,529
Other:						
Boliden	Sweden	1932	6,600,000	[3] 2.00	132,000	
Indian Copper	India	1931	691,942	3.25	22,500	1,832
Mount Lyell	Australia	1932	4,799,931	2.74	131,500	9,903
			3,536,242,832	2.09	73,934,300	1,185,780

[4] The last publication of ore reserves of Chile Exploration Co. was made in 1921. Since then additional ore has been developed but not estimated.
[5] Rhokana Corporation.

With the exception of the Chile estimate of 1921 and the Andes estimate of 1924, the figures given in table 1 are all of sufficiently recent date to indicate little if any need for official modification. However, A. B. Parsons, secretary of the American Institute of Mining and Metallurgical Engineers, in his recent book "Porphyry coppers," published in 1933 by the Institute, lists the reserves of porphyry copper under date of 1929 as follows:

TABLE 2.—*Ore resources of porphyry copper mines*

Mine	Date of estimate	Ore (tons)	Copper	
			Percent	Tons
Utah	December 1929	640,000,000	1.07	6,848,000
Morenci	December 1930	379,349,000	1.02	3,869,000
Nevada	December 1929	[1] 67,963,000	[1] 1.48	1,006,000
Braden	do	234,798,000	2.18	5,119,000
Miami	do	97,400,000	.95	925,000
Ray	do	[1] 85,103,000	[1] 1.65	1,408,000
Chino	do	[1] 125,000,000	[1] 1.40	1,750,000
Inspiration	February 1926	96,000,000	1.40	1,344,000
Chuquicamata	December 1922	684,259,000	2.12	14,506,000
New Cornelia	May 1929	113,262,000	1.25	1,420,000
Copper Queen	December 1929	[7] 23,500,000	1.63	383,000
Andes	December 1924	137,400,000	1.51	2,074,000
		2,684,034,000		40,652,000

[1] Private communication from management.
[7] Includes high-grade ore.

Morenci, New Cornelia, and Copper Queen are all part of the present Phelps Dodge Corporation. Parsons gives them a combined tonnage of 492,611,000 tons, with an average of 1.10 percent of copper and a total copper content of 5,672,000 tons. This is 1,285,900 tons more metal than the amount given for the Phelps Dodge Corporation by the American Bureau of Metal Statistics, whose figure was presumably intended to include not only the porphyry deposits owned by the corporation but the much richer limestone replacement deposits owned by it in Bisbee, Arizona. It is true that some of the reserves included by Parsons have been mined since 1929. The Butte deposits of the Anaconda and the Michigan deposits are not included in his table, as there are no published official estimates. The Butte area stands second in the list of producers of the United States; Michigan for many years stood first and even now ranks seventh or eighth.

The Engineering and Mining Journal for February 23, 1931, published an estimate of world reserves by Col. P. E. Barbour showing an aggregate of 88,542,000 tons of copper. The main increase over that shown in table 2 was 316,000,000 tons of 4 percent ore, or 12,640,000 tons of copper, developed by the Chile Copper Co. since 1921, the date of the last official estimate. Since the 1931 estimate for the Mufulira, in Northern Rhodesia, that company has published (in June, 1932) an estimate of 162,000,000 tons of 4.12 percent ore, or 6,706,800 tons of copper, an increase of 1,590,800 tons. This increase is equal to 75 percent of all the copper mined in the world in the two years 1932 and 1933. No doubt similar increases might be registered for the two other important Rhodesian companies, if there were any object in doing so.

If we take into consideration the probable reserves in the Butte and Lake Superior districts in this country and the unreported reserves in Russia and Japan, it is safe to say that the total known world reserves are of the order of 100,000,000 tons of copper. The average rate of consumption for the last 13 years, according to the American Bureau of Metal Statistics, has been about 1,450,000 tons. At that rate, even if no more copper were found, the reserves would last for 69 years. It is probable, therefore, that for some years to come only the lower-cost mines will find a profitable outlet for their copper except where free market conditions are interfered with by tariffs, quotas, etc.

Since 1800 the United States has absorbed about 20,000,000 tons of copper, and the estimated reserves of the domestic mines amount to about 20,000,000 tons. In other words, for each person of this country there is about 300 pounds of the metal in use and as much more available in the ground. This would seem to be an entirely adequate supply and more than adequate assurance for the future.

The domestic industry is now equipped to produce annually 1,200,000 tons of new copper, or 19.2 pounds per capita, and has a potential capacity to recover 250,000 tons of scrap, or 4 pounds per capita. In 1929, according to the American Bureau of Metal Statistics, the country consumed 18.42 pounds per capita; in 1932 the consumption dropped to 5.39 pounds, an amount less than 25 percent of the potential supply from domestic sources alone.

Beyond all these figures lies the fact that most of the proved districts contain many more milllions of tons of the metal in material too low in grade to have been profitable in the past but ready at any time for extraction when costs can be reduced or demand has increased to a point beyond the ability of the cheaper sources of supply to satisfy the needs.

When the day arrives that the inhabitants of South America, Asia, and Africa require facilities similar to those now in use in the industrial nations of the world, they may replace the apparently waning requirements of the nations of western Europe and North America for new copper. At least it can be said that there is no present shortage of supply, and no prospect of one for several decades to come.

"Exhibit No. 2169-B" introduced on p. 13301 is on file with the committee.

EXHIBIT No. 2170

Foreign Direct Investments in the United States, by Industries, 1937

[000 omitted]

Industry	Investment
Manufacturing:	
Automobile parts	$34, 821
Iron and steel	6, 348
Non-ferrous metals	24, 200
Transportation equipment	1, 790
Machinery	31, 977
Heating and electrical equipment	11, 963
Hardware	12, 276
Building and constructed material	15, 827
Paper and wood products	18, 236
Chemicals	220, 304
Rubber	2, 561
Leather	2, 725
Textiles	217, 164
Foodstuffs	31, 938
Beverages	65, 275
Tobacco	18, 764
Other manufactures	12, 500
Total, manufacturing	$728, 669
Distribution	119, 161
Transportation	257, 002
Public Utilities	9, 182
Petroleum	283, 450
Mining	23, 902
Finance:	
Banking, securities	61, 103
Insurance	351, 262
Total, finance	$412, 365
Agriculture	12, 670
Miscellaneous	36, 202
Grand Total	$1, 882, 603

Exhibit No. 2171

Foreign Direct Investments in the United States, by Countries, 1937

[000 omitted]

Country	Total Investment
Europe:	
Austria	$155
Belgium	71, 190
Czechoslovakia	1, 467
Denmark	8, 138
France	56, 503
Germany	54, 985
Greece	765
Irish Free State	1, 107
Italy	12, 476
Lichtenstein	8, 257
Lithuania	35
Luxembourg	2, 757
Madeira	147
Monaco	67
Netherlands	178, 519
Norway	2, 318
Poland	26
Portugal	2
Spain	1, 419
Sweden	29, 736
Switzerland	73, 932
Union of Socialist Soviet Republics	20
United Kingdom	833, 343
Total, Europe	1, 337, 364
North America:	
Canada	462, 593
Newfoundland	102
Total, North America	462, 695
Mexico and Central America:	
Mexico	1, 751
El Salvador	1
Guatemala	60
Honduras	12
Panama	125
Total, Mexico and Central America	1, 949
South America:	
Argentina	$987
Bolivia	14
Brazil	1, 674
Chile	7, 777
Peru	21
Total, South America	10, 473
West Indies:	
British West Indies	914
Cuba	4, 986
Dominican Republic	75
Total, West Indies	5, 975
Africa:	
British Africa	255
Egypt	3
Total, Africa	258
Asia:	
British India	1, 260
China	4, 803
Hong Kong	436
Iraq	106
Japan	41, 030
Netherlands East Indies	1
Palestine	44
Philippine Islands	9, 803
Turkey	4
Total, Asia	57, 487
Oceania:	
Australia	741
New Zealand	1, 864
Total, Oceania	2, 605
Unknown	3, 797
Grand total	$1. 882, 603

EXHIBIT NO. 2172

Foreign direct investments in the United States by principal countries and industries, 1937 (U. S. dollars)

[000 omitted]

	Manufacturing	Distribution	Transportation	Public Utilities	Petroleum	Mining	Finance	Miscellaneous	Total
Europe:									
United Kingdom	$366, 547	$29, 674	$30, 282	$925	$92, 940	$13, 146	$277, 074	$22, 752	$833, 343
Netherlands	27, 825	5, 009	1, 032		142, 551	325	1, 266	511	178, 519
Belgium	65, 662	3, 573	142			112	1, 071	630	71, 190
Germany	45, 805	6, 279	2, 467		38		147	249	54, 985
Switzerland	24, 175	12, 864	172		2, 276		28, 051	6, 400	73, 932
France	24, 109	7, 411	1, 490		10, 078		11, 629	1, 786	56, 503
Sweden	24, 998	1, 433	736				2, 569		29, 736
Other Europe	11, 937						13, 071	7, 895	39, 156
Total	591, 058	69, 689	39, 125	925	247, 883	13, 583	334, 875	40, 223	1, 337, 364
Canada [1]	130, 873	11, 008	215, 624	8, 057	34, 987	10, 199	45, 742	6, 205	462, 693
Latin America	2, 205	13, 975	5	200	149	55	1, 516	292	18, 397
Africa, Asia, and Oceania:									
Japan	927	16, 531	1, 757				21, 805	10	41, 030
Other	1, 869	7, 936	41				8, 383	1, 085	19, 317
Total	2, 796	24, 467	1, 801				30, 188	1, 095	60, 347
Unknown	1, 737	22	417		431	65	38	1, 057	3, 797
Grand total	728, 669	119, 161	257, 002	9, 182	283, 405	23, 902	412, 365	48, 872	1, 882, 603

[1] Including $102,000 for Newfoundland ($2,000 in Mining and $100,000 in "miscellaneous").

Exhibit No. 2173

List of industries involved in cases brought before the Federal Trade Commission and/or the courts over the last ten years in which the members of any industry employed a trade association or other common agency to deprive individual sellers of their freedom to determine their own output and/or the prices at which they may sell, or to exclude other sellers from the trade

Asphalt shingle and roofing:
- Asphalt Shingle & Roofing Institute, 1930. "Federal Antitrust Laws", Case #377.

Automobile parts and accessories jobbers:
- (a) Birmingham Automotive Jobbers Association, 1935. FTC Docket #2382.
- (b) National Standard Parts Association, 1936. Complaint, FTC Docket #2942.

Building materials suppliers:
- (a) National Federation of Builders Supply Associations and Building Material Dealers Alliance, 1937. TNEC Hearings, p. 2331.
- (b) Florida Building Material Institute, Inc., 1938. Hearings, p. 2348.

Blue print paper:
- Scientific Apparatus Makers of America, Inc., 1937. Complaint, FTC Docket #3092.

Bolts, nuts, and rivets:
- Bolt, Nut, and Rivet Manufacturers Association, 1931. FAL, Case #378.

Brushes—common agent:
- Ox Fibre Brush Co. and others, 1937. FAL, Case #424.

Butter tubs:
- Butter Tub Manufacturers Council, 1937. Hearings, p. 2324.

Buttons and buckles:
- Covered Button & Buckle Creators, Inc., 1937. Hearings, p. 2327.

Candy distributors:
- (a) Confectioners Club of Baltimore, 1930. FAL, Case #350.
- (b) Evansville Confectioners Association, 1929. FAL, Case #360.
- (c) Southern New York Candy Distributors Association, 1935. FTC Docket #2292.
- (d) Wyoming Valley Jobbers Association, 1935. FTC Docket #2403.
- (e) New York State Wholesale Confectionery Associations, Inc., 1936. Hearings, p. 2314.

Card clothing:
- Card Clothing Manufacturers Association, 1936. Complaint, FTC Docket #3019.

Cast iron soil pipe:
- Cast Iron Soil Pipe Association, 1937. Complaint, FTC Docket #3091.

Chalk and wax crayons, water colors, etc.:
- Crayon, Watercolor and Craft Institute, 1938. Hearings, p. 2335.

Cellulose sheeting:
- National Converters Institute, 1939. Complaint, FTC Docket #3897.

Cement:
- Cement Institute, 1937. Complaint, FTC Docket #3167.

Cleaners and dyers (D. C.):
- Atlantic Cleaners & Dyers, Inc., 1931. FAL, Case #358.

Compressed air machinery and pneumatic tools:
- Compressed Air Institute, 1939. Complaint, FTC Docket #3958.

Corn products:
- Corn Derivatives Institute, 1932. FAL, Case #382.

Corn cribs and silos—common agent:
- Rowe Manufacturing Co., 1938. Hearings, p. 2353.

Corrugated and solid fibre board shipping containers:
- National Container Association, 1939. Indictment.

Cotton yarns:
- Mercerizers Association of America, 1931. Hearings, p. 2306.

Dresses:
- (a) Dress Creators League of America, 1934. FAL, Case #401.
- (b) Party Dress Guild, Inc., 1934. FAL, Case #402.
- (c) Half-Size Dress Guild, Inc., 1934. FAL, Case #403.
- (d) Fashion Originators Guild, 1939. FTC Docket #2769.

Electrical contractors:
(a) San Francisco Electrical Contractors Association, 1939. Indictment.
(b) Electrical Contractors Association of Pittsburgh, 1939. Indictment.
(c) U. S. Engineering Survey and Audit Co. (New Orleans), 1939. Indictment.
Electrical equipment distributors (Detroit):
Cadillac Electric Supply Co. (use of common employee as agent), 1939. Indictment.
Fire hose:
Rubber Manufacturers Association, Inc., 1935. FTC Docket #2354.
Fireworks:
Pyrotechnic Industries, Inc., 1938. Hearings, p. 2342.
Fish wholesalers:
Fish Credit Association, Inc., 1936. FAL, Case #389.
Furniture retailers:
Retail Furniture Dealers Association of St. Louis, 1936. Hearings, p. 2320.
Furs:
(a) Protective Fur Dressers Corporation, 1936. FAL, Case #394.
(b) Fur Dressers Factors Corporation, 1937. FAL, Case #396.
Glass distributors:
National Glass Distributors Association, 1937. Hearings, p. 2330.
Glazing contractors (Cleveland):
Steel Sash Glass Bureau, 1939. Indictment.
Golf balls:
Golf Ball Manufacturers Association, 1938. Hearings, p. 2335.
Grocery wholesalers (Fall River, Mass.):
Fall River Wholesale Grocers Association, 1936. Hearings, p. 2317.
Hot air furnaces:
New York Sheet Metal Roofing and Air Conditioning Contractors Association, 1937. Hearings, p. 2328.
Industrial rivets:
Institute of Tubular Split and Outside Pronged Rivet Manufacturers, 1938. Hearings, p. 2342.
Kraft paper:
Kraft Paper Association, 1939. Indictment.
Ladies imitation leather handbags:
National Association of Ladies Handbag Manufacturers, 1935. FTC Docket #2189.
Laundries (Southern California):
Southern California Laundry Owners Association, 1932. FTC Docket #1954.
Linen coats, towels and aprons (D. C.):
Linen Supply Association of the District of Columbia, 1935. Hearings p. 2310.
Lumber (Pacific Coast):
(a) California Lumbermen's Council, 1938. Hearings, p. 2343.
(b) Hardwood Institute, 1938. Complaint, FTC Docket #3418.
Machine tools:
Machine Tools Distributors (Chicago District), 1932. Hearings, p. 2308.
Metal windows:
Metal Window Institute, 1937. Hearings, p. 2329.
Millinery:
Millinery Quality Guild, 1934, 1937. FAL, Case #386, Hearings, p. 2322.
Norwegian sardines:
Norwegian Canners Price Committee, 1931. FAL, Case #374.
Oil (Pacific Coast):
(a) Standard Oil Company of California, 1930. FAL, Case #369.
(b) Independent Refiners Association, 1939. Indictment.
Paper, pulp and wooden dishes:
Food Dish Associates of America, 1938. Hearings, p. 2349.
Photo-engraving:
American Photo-Engravers Association, 1928. FTC Docket #82 and #928.
Poultry (New York):
Greater New York Live Poultry Chamber of Commerce, 1934. FAL, Case #368.
Power cable and wire:
National Electrical Manufacturers Association, 1936. Hearings, p. 2319.

Produce distributors (New York):
 Union Pacific Produce Co., 1936. FAL, Case #387.
Retail credit reporting service:
 National Retail Credit Association, 1933. FAL, Case #390.
Rice:
 California Rice Industry, 1938. Hearings, p. 2340.
Rubber heels distributors:
 The I. T. S. Co. and National Federation of Master Shoe Rebuilders, 1938. Hearings, p. 2321.
Sand and gravel contractors (New York):
 Long Island Sand & Gravel Producers Association, 1939. Indictment.
Sea food (D. C.):
 Washington Sea Food Dealers Association, 1935. Hearings, p. 2309.
Sheet metal contractors (New Orleans):
 Sheet Metal Association, 1939. Indictment.
Snow fence:
 United Fence Manufacturers Association, 1938. Hearings, p. 2345.
Sponges:
 (a) Tarpon Springs Sponge Exchange, 1938. Hearings, p. 2333.
 (b) Sponge Institute, 1939. FTC Docket #3025.
Sugar:
 Sugar Institute, 1936. FAL, Case #379.
Surgical instruments and supplies:
 Metropolitan Instrument Council, 1936. FTC Docket #2409.
Textile refinishing:
 Textile Refinishers Association, Inc., 1936. FAL, Case #414.
Tile contractors:
 (a) Northwest Tile & Mantel Contractors Association, 1930. FTC Docket #1764.
 (b) Detroit Tile Contractors Association and Tile Contractors Association of America, 1939. Indictment.
 (c) Chicago Mantel & Tile Contractors Association, 1940. Indictment.
Trucking:
 (a) Motor Freight Transport Association, 1931. FAL, Case #380.
 (b) Market Truckmens Association, 1933. FAL, Case #392.
Uniform caps:
 Uniform Cap Manufacturers Institute, Inc. and Cap Association of the United States, 1937. Hearings, p. 2324.
Water gate valves, hydrants & fittings:
 Waterworks Valve & Hydrant Group of Valve & Fittings Institute, 1937. Hearings, p. 2323.
Wooden containers:
 (a) American Veneer Package Association, 1938. Complaint, FTC Docket #3556.
 (b) Standard Container Manufacturers Association, 1937. Complaint, FTC Docket #3289.
Woolen goods:
 Wool Institute, Inc., 1930. FAL, Case #375.
Zinc and copper plates:
 Photo Engravers Copper Zinc and Grinders Association, 1936. Hearings, p. 2313.

Exhibit No. 2174

Sales cartel or syndicate arrangements in the United States

Oil Industry, Central Association of Refiners, 1875.
Salt Industry in Michigan, 1876.
Wall Paper Industry—Continental Wall Paper Co., 1898–1909.
Sheet Music and Player Piano Rolls—Consolidated Music Corp., 1922.
White Glazed Paper Industry—American Coated Paper Co., 1921.
Cattle and Calf Hair Industry—Tanners Products Co., 1927.
Water-Marked Paper Industry—Alden Paper Co., 1930.
Sardines—Maine Co-operative Sardine Co., 1927.
Bituminous Coal Industry—Appalachian Coals, Inc., 1933.
Public performance of copyrighted music—American Society of Composers, Authors & Publishers, 1934.
Concrete Pipe Industry—Arlington Concrete Pipe Corp., 1938.
Candy Stick Industry—Imperial Wood Stick Co., 1939.

Exhibit No. 2175

Quota Systems Operative in NRA Codes

LUMBER AND TIMBER PRODUCTS

(Art. VIII):

(a) To effectuate the declared purposes of this Code in respect of maintaining a reasonable balance between the production and the consumption of lumber and timber products and to assure adequate supplies thereof, the Authority shall determine, and from time to time revise, not less frequently than each three months, except as hereinafter otherwise provided estimates of expected consumption, including exports, of lumber and timber products of each Division and Subdivision; and based thereon it is empowered to establish, and from time to time revise, production quotas for any Division or Subdivision of the lumber and timber products industries. Allotments within each Division and Subdivision, for the persons therein, shall be made, subject to the supervision of the Authority, by the agencies designated by it. Said quotas as between such Divisions or Subdivisions shall be in proportion to the shipments of the products of each during a representative recent past period to be determined by the Authority; but the Authority may modify said proportions if warranted by evidence. In case of Divisions or Subdivisions, the raw material of which is imported, the quotas and allotments may be in terms of imports, so far as may be consistent with the provisions of Section 3 (e) of the National Industrial Recovery Act.

(b) Each person in operation shall be entitled to an allotment. Each person known to any Division or Subdivision agency to be in operation shall be registered by such agency immediately and shall be assigned an allotment. The agency shall also immediately give public notice reasonably adapted to reach all persons operating or desiring to operate, stating the date on which the allotments will be determined; and any person desiring to operate who shall give the agency written notice of such desire ten days before the allotment date, supported by acceptable evidence of ability to operate, shall be registered by the agency and assigned an allotment. Any person so registered shall be deemed an "eligible person" for the purposes of this Article.

(c) The allotment for each eligible person shall be determined from time to time for a specified period not exceeding three (3) months and, except as may be permitted under the provisions of section (d) hereof, shall be as follows:

(1) That proportion of a specified percentage, determined as provided in sections (d) and (e) of this Article, of the Division or Subdivision quota which his greatest average hourly production in the hours operated during any three calendar years since December 31, 1924, is of the aggregate of such hourly production of all eligible persons within the Division or Subdivision.

(2) That proportion of a specified percentage, determined as provided in sections (d) and (e) of this Article, of the Division or Subdivision quota which his greatest average yearly production for any three calendar years since December 31, 1924, is of the aggregate of such yearly production of all eligible persons within the Division or Subdivision. In the application of this subsection, shipments may be used in lieu of production at the option of a Division or Subdivision.

(3) That proportion of a specified percentage, determined as provided in sections (d) and (e) of this Article, of the Division or Subdivision quota which the greatest average number of his employees during any three calendar years since December 31, 1924, is of the aggregate of such number of employees of all eligible persons within the Division or Subdivision.

(4) That proportion of not to exceed ten (10) percent of the Division or Subdivision quota which the amount of taxes paid by him, except Federal taxes, taxes on ore, coal, petroleum, ships, retail yards, and timber not set apart for the operation, during the next preceding calendar year is of the total amount of such taxes paid by all eligible persons within the Division or Subdivision.

(5) That proportion of not to exceed fifteen (15) percent of the Division or Subdivision quota which the quantity of reserve standing timber allocated to his operations within said Division or Subdivision, and at the time the allotment is made, owned by him in fee or under contract is of the total quantity of such reserve standing timber owned in fee or under contract by all eligible persons within the Division or Subdivision.

(6) In any Division or Subdivision where the Divisional or Subdivisional administrative agency shall by two-thirds majority vote so request, the Authority may, if it shall determine that it is impractical otherwise to administer production control within said Division or Subdivision, authorize the allotment of production therein in terms of allowable hours of operation.

(d) (1) Exceptions to or changes in any allotment thus established shall be made only for special, accidental, or extraordinary circumstances, or, in any Division or Subdivision, for other factors peculiar to a limited group of operations. Exception may be made only on application to the designated Division or Subdivision agency by an eligible person who must submit evidence in support of his application, and the exception may be granted only upon a published finding and statement of reasons therefor.

(2) A person conducting seasonal operations as defined in Article VI (a) (2) (D) hereof shall be entitled, on application to his Division or Subdivision agency, to produce during his period of operation not only amounts allotted to him during his period of operation but also amounts allotted to him under section (c) hereof since the termination of his previous operating period.

(3) In the case of any person (a) who produced during less than three calendar years since December 31, 1924, and before December 31, 1930, or (b) who is entitled to an allotment for operation of new, additional, or restored facilities, which were not in operation for such three calendar years, or (c) for whom for any other reason such three calendar years are not reasonably representative of his present circumstances, his average hourly production, his average yearly production, and his average number of employees shall be determined by the Division or Subdivision agency on an equivalent basis by comparison with substantially equal facilities already established and in like regions or conditions.

(4) On application of a Division or Subdivision, the Authority may authorize the allotment of production therein on any one or more of the bases provided in subsections (1), (2), and (3) of section (c) hereof in such relative proportions as the Authority may approve; and including or not the bases, or either of them, provided in subsections (4) and (5) of said section (c).

(e) In the absence of an approved application from any Division or Subdivision for the assignment of allotments under the provisions of subsection (4) of section (d) hereof, the Authority may direct that allotments within said Division or Subdivision be assigned in accordance with the provisions of section (c) in the following relative proportions:

Subsection (1), hourly production, 40 percent;
Subsection (2), yearly production or shipments, 30 percent;
Subsection (3), number of employees, 15 percent;
Subsection (4), taxes paid, 5 percent;
Subsection (5), standing timber, 10 percent;

unless the Division or Subdivision shall elect to accept the average relative proportions of the Divisions or Subdivisions whose allotments have been theretofore approved.

(f) The basis for determination of Division and Subdivision quotas and of individual allotments and any revisions thereof, all quotas, all allotments, and all appeals therefrom and all decisions on appeals shall be published.

(g) Allotments from two or more Divisions or Subdivisions to the same person shall be separate and distinct and shall not be interchangeable. Allotments shall not be cumulative except as authorized in specific cases under Section (d) (1) of this Article, or in cases of seasonal operations of a division or subdivision under Section (d) (2) of this Article, and shall not be transferable except that upon application, the administrative agency of a division or subdivision, if it shall find that the nontransferability of an allotment causes or will cause an undue hardship in any particular case, and if it shall find, further, that the limitations hereinafter set forth upon the exercise of its authority do not exist, may authorize, under such equitable conditions and limitations as it shall determine, the transfer of allotments between operations under the same ownership within the same division or subdivision, provided that such authorization shall not become effective for a period of fifteen (15) days after the date thereof, and provided, further, that such authorization, together with the findings of fact of said agency shall be transmitted on the date thereof to the Authority and the National Recovery Administration, and provided further, that such authorization shall be subject to appeal by any interested party as provided in Article XVII hereof. No division or subdivision agency shall authorize the transfer of any allotment: (1) from a mill or factory acquired after the effective date hereof until such mill shall have been operated in good faith for six consecutive months by the new owner; (2) from one mill to another unless the species ordinarily produced by both are substantially the same; or (3) from any mill, the greater part of whose product may, under the provisions of Article IX, Section (a), Subsection 2 of this Code, be sold at prices less than the approved reasonable costs for the division or subdivision, except from a mill of the same class.

(h) Whenever in the case of any eligible person it shall be necessary, in order to accept and execute orders for export, to have an addition to his regular allotment, provision for such necessary excess shall be made by the Division or Subdivision agency, provided that any excess above his allotment shall be deducted from his subsequent allotment or allotments.

(i) The Authority may modify, or cause to be modified, production quotas and allotments determined hereunder, and the bases therefor, in such manner and to such extent as may be necessary to effectuate the provisions of the Code in respect of the conservation and sustained production of forest resources. Such modification shall not be made effective prior to the next succeeding allotment date.

(j) The basis of allotments as provided in sections (c), (d), and (e) hereof is tentative and is subject to revision. When in the judgment of the Authority revision of the bases of allotments is desirable, whether by changing the proportions of the factors in determining allotments enumerated in Section (c), subsections 1, 2, 3, 4, and 5, of this Article, in accordance with the procedure established in sections (d) and (e) hereof, or by the addition of other factors, consideration shall be given to the inclusion of practicable and equitable measures, subject to the approval of the President for increasing allotments of persons whose costs are below the weighted average defined in section (a) of Article IX.

(k) The Authority, as promptly as practicable after its action pursuant to Art. X hereof, shall submit for the approval of the President appropriate changes in the bases of allotments.

Pursuant to the foregoing each eligible person who makes application to be recognized as securing his raw material supply from forest lands under his ownership or control which are managed on a sustained yield basis, and who secures from his Division or Subdivision agency established or designated as provided in Section 1 of Schedule C a certificate showing that he is in good faith conducting his operation upon such basis, shall have his production allotments, as determined without the benefit of this paragraph, increased by 10 per cent. If only part of his raw material supply comes from such sustained yield operation, his increased allotment shall be that proportion of 10 per cent which the volume of his raw material coming from such sustained yield operation is of his total volume. Sustained yield forest management is defined in Section 2 (g) of Schedule C. The additional production allotments provided for in this paragraph shall come from the total national production quota.

(l) Except as otherwise provided in section (h) of this Article, no person shall produce or manufacture lumber or timber products in excess of his allotment. If any person shall exceed his allotment the Division or Subdivision agency shall diminish the subsequent allotment or allotments of the offender in an amount equal to such excess.

(m) The Authority shall issue interpretations and shall promulgate rules and regulations necessary for the enforcement of this Article, to prevent evasion and secure equitable application thereof, and assign quotas to each Division and Subdivision which shall become effective on the dates specified by the Authority. Each Division and Subdivision shall assign allotments to all eligible persons effective on the dates specified by the Authority.

Interim Article.—Pending the effective date of placing Article VIII or any part thereof in execution in any Division or Subdivision, the Authority may authorize the designated agency of such Division or Subdivision to assign to eligible persons production allotments in hours of allowable operation.

PETROLEUM INDUSTRY

(Article III, as amended April 24, 1934):

3. *Production.*—Required production of crude oil to balance consumer demand for petroleum products shall be estimated at intervals by a Federal Agency designated by the President. In estimating such required production due account shall be taken of probable withdrawals from storage and of anticipated imports. The required production shall be equitably allocated among the several States by the Federal Agency. The estimates of required production and the allocations among the States shall be submitted to the President for approval, and, when approved by him, shall be deemed to be the net reasonable market demand, and may be so certified by the Federal Agency. The allocations when approved by the President shall be recommended as the operating Schedule for the producing States and for the industry and thereupon Section 4 of this Article shall apply. In any States where oil is produced on account of back allowables, total current allowables shall be reduced accordingly.

4. The subdivision into pool and/or lease and/or well quotas of the production allocated to each State is to be made within the State. Should quotas allocated

in conformity with the provisions of this Section and/or Section 3 of Article III of this Code not be made within the State or if the production of petroleum within any State exceeds the quota allocated to said State, the President may regulate the shipment of petroleum or petroleum products in or affecting interstate commerce out of said State to the extent necessary to effectuate the purposes of the National Industrial Recovery Act and/or he may compile such quotas and recommend them to the State Regulatory Body in such State, in which event it is hereby agreed that such quotas shall become operating schedules for that State.

If any subdivision into quotas of production allocated to any State shall be made with a State any production by any person, as person is defined in Article I, Section 2 of this Code in excess of any such quota assigned to him shall be deemed an unfair trade practice and in violation of this Code.

7. As to new capacity, "wild-catting" is specifically not prohibited, but shipments from new pools not developed in accordance with a plan approved by the President is unfair competition.

Article IV, Refining (as amended April 24, 1934):

1. To achieve greater accuracy in balancing production and consumption of gasoline and to prevent the injurious effect on interstate commerce of an unbalanced accumulation of inventories of gasoline in any part of the country or of surplus production and consequent distribution of gasoline in excess of market requirements, a federal agency designated by the President shall divide the country into refining districts and shall (after consultation with the Planning and Coordination Committee and such other sources of information as it may deem necessary) determine from time to time

(1) The proper inventories of gasoline for the country as a whole and

(2) The production of gasoline in the country as a whole necessary to meet the demand therefor, with due regard to normal and seasonal fluctuation in refining operations.

The determinations so made shall constitute the operating schedule for the refining industry in the country as a whole, and same shall be published for at least twenty days before the effective date thereof.

2. The Planning and Coordination Committee shall appoint a National Coordinator of Refining operations, subject to the approval of the President, and may appoint a District Allocator for each district. District Allocators shall cooperate with the regional refinery committees and other committees or agencies designated by the Planning and Coordination Committee in making effective the provisions of this article. The Planning and Coordination Committee shall appoint, subject to the approval of the President, a Board of Review consisting of not to exceed ten in number, for the purpose of reviewing the findings and allocations of District Allocators, the agencies established by the refinery district committees (where no allocator is appointed), and the National Coordinator.

3. The National Coordinator and the District Allocators (or the proper agency established by the refinery district committee where no allocator is appointed), in joint session, subject to the approval of the Planning and Coordination Committee, shall determine from time to time

(1) The proper inventories of gasoline for each district and

(2) The production of gasoline in each district necessary to meet the demand therefor, with due regard to normal and seasonal fluctuation in refining operations.

The determinations so made shall constitute the operating schedule for the refining industry in each district and same shall be published for at least fifteen days before the effective date thereof.

(3) Within the limits of the operating schedule for the refining industry in each district as thus determined, an agency designated by the Planning and Coordination Committee and the District Allocator (when one is appointed) in joint session, shall establish fair and reasonable quotas for each refinery operating in the district. In the event of disagreement between a District Allocator and the agency designated above or in the event of the failure of such agency to act, the District Allocator shall establish such quotas subject to appeal as herein provided.

In making such allocations the agency and/or District Allocator (when one is appointed) shall take into consideration relevant features of operating and marketing conditions under rules and regulations prescribed by the Planning and Coordination Committee and approved by the Administrator. Every effort shall be made to avoid inequities which may exist in the availability of supplies of crude oil to refiners necessary to maintain either the proper ratio between inventories and gasoline and sales thereof and/or the production of gasoline authorized in the manner set forth above. No withdrawals of crude oil from storage by or in behalf of any refiner operating only in a single district shall be authorized under

the terms of Article III, Section 2, hereof, and/or rules or regulations issued thereunder, unless the application has been referred for advice to said agency and District Allocator (when one is appointed) concerned.

4. The National Coordinator of refining operations in the case of refiners operating refineries and/or who are maintaining gasoline inventories in more than one refining district shall adjust such operations and inventories in order that district allocations may be adjusted in such manner as equitably to meet the consolidated requirements of such refiners.

The National Coordinator and the District Allocators (or the agency established by the refinery district committee where no District Allocator is appointed) shall meet at such times and places as may be necessary to provide the necessary coordination between districts and uniform application in each district of the rules and regulations provided thereunder. Each District Allocator (or the agency established by the refinery district committee where no District Allocator is appointed) shall furnish to the National Coordinator a complete statement of the allocation made to each refinery in the District and shall furnish such regular reports as may be required by the National Coordinator for the proper performance of his duties.

No withdrawals of crude oil from storage by or on behalf of refiners operating refineries, and/or maintaining crude oil inventories in more than one refining district, shall be authorized under the terms of Article III, Section 2 hereof, and/or rule and regulation issued thereunder, unless the application has been referred for advice to the National Coordinatior.

5. Any person may appeal from any recommendation, allocation or decision of the District Allocator, Agency designated by the Planning and Coordination Committee, agency established by the refinery district committee, or the National Coordinator to the Board of Review provided for above, and the decision of the said Board of Review shall be final, subject to the right of the Planning and Coordination Committee to review such decision upon appeal, which Committee's action, either in respect to the exercise of such right or in respect to the determination made if such right be exercised, shall be subject to the approval of the Administrator.

6. In order that the provisions of this article may not operate in such manner as to discriminate against small refining enterprises and in order to assist in orderly liquidation of excessive gasoline inventories, the Planning and Coordination Committee may, with the approval of the President, authorize suitable arrangements for the purchase of gasoline from non-integrated and/or semi-integrated refiners and the resale of same through orderly channels.

7. Upon a determination by the Planning and Coordination Committee that an excessive supply of gasoline or an unbalanced accumulation of inventories of gasoline exists in any district, which excessive supply and/or excessive accumulation of inventories injuriously affect interstate and foreign commerce and is such that any remedy must incidentally apply in like manner to intra-state commerce, the Planning and Coordination Committee may establish fair and reasonable quotas in commerce for gasoline to be moved from all or any of the refineries or other sources of supply in the district. Such quotas shall be in accord with such rules and regulations as are promulgated by the Planning and Coordination Committee.

While such quotas are in effect, no person shall place in commerce or receive in commerce (interstate, intrastate or foreign) by sale, exchange, consignment or otherwise, any gasoline in excess of the quota prescribed. Before establishing quotas for gasoline the Planning and Coordination Committee shall hold or cause to be held, hearings with respect to the establishment of such quotas and to such other matters as in the opinion of the committee may be proper, after such reasonable public notice as may be prescribed; Provided, however, that in any emergency as determined to exist by the committee, quotas may be established for a temporary period not to exceed one calendar month without previous notice or hearing, but in such event, the committee in the next subsequent period, shall adjust quotas so allocated upon the basis of due notice and hearing hereinabove prescribed so as to prevent any inequitable allocation. Any person, natural or artificial, aggrieved by any quota, shall have a right to appeal to the Administrator.

This section is to be construed and may be enforced without reference to the other provisions of this article.

8. The Planning and Coordination Committee may make such rules and regulations, authorize such committees, and require such reports as it may deem necessary to accomplish the purpose of this article.

9. The word "gasoline" as used herein shall be held to include such products as may be determined from time to time by the Planning and Coordination Committee.

10. In case of any appeal, the appellant shall abide by all the provisions of this article and the rules and regulations issued thereunder pending the decision of such appeal, but in case the contentions of the appellant are upheld in whole or in part, an order shall be issued which shall be retroactive to the effective date of the order appealed from.

11. Failure on the part of any person to observe or comply with any provisions of this article or any valid order, rule or regulation hereunder, shall constitute a violation of the code.

GLASS CONTAINER

(Schedule A):

(a) It becomes necessary to conduct the industry in an orderly way and to maintain competitive conditions in order that the provisions and intent of the National Industrial Recovery Act may be effectuated. Therefore, so long as the industry is operating below 70% of yearly registered capacity for such period as the Administrator may approve, the principle of sharing available business equitably among the members of the industry shall be recognized, not to restrict production but to maintain a reasonable balance between production and consumption of glass containers and to assure adequate supplies thereof.

(b) When the industry is operating at 70% of average yearly registered capacity for such period as is approved by the Administrator, the principle of sharing available business shall be reconsidered by the industry and its recommendation transmitted to the Administrator for his approval.

(c) If at any time a majority of the industry as defined in Section 10, Article II, shall vote against the principle of sharing available business equitably among the members of the industry, this Code shall be amended as the members of the industry may determine and as the Administrator may approve.

(d) To make this principle effective, the Code Authority shall formulate a plan for equitable allocation of production to each member in the industry or who may hereafter enter the industry and shall submit such plan to the Administrator for his approval. Such plan shall give due consideration to productive capacity and past performance and shall recognize the greater difficulties to be met by the smaller producers in the industry in operating on a curtailed basis, and such other factors as the Administrator may direct. After the Administrator has approved such plan, the Code Authority shall from time to time, but not less frequently than each six months, prepare an estimate of expected consumption of glass containers. Upon the basis of such estimate the Code Authority shall make equitable allocations to each member in the Industry in accordance with the plan so approved. Each member of the Industry shall be entitled to be registered by the Code Authority and shall be assigned an allotment. The Code Authority shall take such steps as may be reasonably adapted to give notice to all persons operating that such allocation will be made. After such allotments have been assigned, no person shall produce glass containers in excess of his allotment.

(e) The Code Authority shall issue interpretations and promulgate rules and regulations necessary for the enforcement of this Schedule "A", to prevent evasion, and to secure the equitable application thereof.

(f) The Code Authority shall so administer the provisions of this Schedule "A" as to prevent loss of export business to the glass-container industry as the result of the operation of this Schedule "A."

(g) Any member of this industry unable for any reason to accept his allotment under this Schedule "A" shall file his reasons therefor with the Code Authority, who shall immediately organize a Board of Arbitration composed of one member appointed by the Code Authority, one member representing the complainant member of the industry, and one member selected by two members so appointed. If the two members so appointed are unable to agree upon the selection of the third member, the Administrator shall appoint a disinterested third member. The decision of this Arbitration Board may be appealed as the Administrator, in accordance with law, may prescribe.

ATLANTIC MACKEREL FISHING

(Article VIII, Title C, 1):

(c) In order to conserve natural resources by the elimination of conditions leading to gluts in the mackerel market and consequent wastage through dumping of mackerel at sea, and by the development of the maximum usable yield com-

patible with future productivity through prevention of the take of small mackerel during those portions of the season when larger sizes are available to supply the demand for mackerel, and to rehabilitate the mackerel fishery by maintaining a reasonable balance between the production of mackerel and the consumption of mackerel, and by assuring minimum prices for mackerel not below the cost of production:

(1) The Executive Committee, with the approval of the Administrator, from time to time may estimate consumer demand for mackerel. When any such estimate shall have been approved by the Administrator, the same shall be deemed to be the net reasonable market demand for mackerel; and therefrom the Executive Committee, with the approval of the Administrator may determine (according to the run of the fish and other conditions in the ocean) whether the exploitation of the mackerel fishery should be unrestricted, or whether a total or partial limitation on the take of small mackerel by purse seine boats should be effected.

(a) Any determination by the Executive Committee pursuant to the provisions of subdivision (1) of this paragraph shall by revised from time to time to conform with the net reasonable market demand for mackerel as found as aforesaid, and all estimates and determinations by the Executive Committee pursuant to the provisions of said subdivision shall be subject to the approval of the Administrator, and shall be based upon a published finding and statement of the reasons therefor. Any limitation on the take of small mackerel shall accord due consideration to the effect of such limitation on the cost of production of mackerel larger in size.

(3) In estimating consumer demand for mackerel, due account shall be taken of probable withdrawals from storage of frozen and salt mackerel, of anticipated imports of frozen and salt mackerel, and of production and consumption of groundfish.

(d) In the event that any determination of the Executive Committee pursuant to the provisions of paragraph (c) of this Section fails to effectuate the conservation and/or rehabilitation policies hereinbefore stated, the Executive Committee, upon due showing to the Administrator and with his approval, may determine from the net reasonable market demand for mackerel found as aforesaid the poundage of mackerel, with reasonable tolerances, that may be landed from any trip by purse seine boats engaged in the mackerel fishery. In allocating trip poundage quotas to such boats due consideration shall be given to boat tonnage and crew size.

(e) In the event that any determination of the Executive Committee pursuant to the provisions of paragraphs (c) and (d) of this Section fails to effectuate the conservation and/or rehabilitation policies hereinbefore stated, the Executive Committee may, with the approval of the Administrator member or members of the Executive Committee and subject to the review of the Administrator, limit the exploitation of the mackerel fishery by purse seine boats engaged in the mackerel fishery to a portion of the fleet at one time and to other portions of the fleet at other times. Any exploitation schedule promulgated by the Executive Committee in this connection shall be equitable to all boats so engaged, and to their crews; and any determination by the Executive Committee pursuant to the provisions of this paragraph shall be communicated forthwith to the Administrator.

COPPER

(Executive Order Approving Code):

6. Sales plan—quotas and allocation—(1) from and after the effective date of this Code all sales of copper by those governed by this Code shall be made in conformity with the provisions of this Article VII.

The Administrator upon his own initiative, or the Code Authority with the approval of the Administrator, may establish rules and regulations to effectuate the purposes of the Sales Plan. Until the establishment of such rules and regulations by the Code Authority the Sales Clearing Agent shall set up rules and regulations which in his judgment are designed to carry out the spirit and intent and general purposes of the Sales Plan, subject to the review and disapproval of the Administrator. The purpose of this Sales Plan is to provide in so far as possible a first place in sales for current production and then to provide for a fair and equitable sale of stocks.

(2) Until such time as the Code Authority may determine that such member has failed to comply with the provisions of this Code and such determination has been approved for the purpose by the Administrator, the monthly sales quota for each primary producer of the industry listed below and the relative annual

productive capacities of such members, arrived at solely for the purpose of establishing sales quotas, shall be as follows:

	Tons per annum	Monthly sales quotas
		Percent
Kennecott Copper Corporation	366, 500	1. 67
Anaconda Copper Mining Company	225, 000	1. 67
Phelps Dodge Corporation	168, 000	1. 67
United Verde Copper Company	68, 000	1. 90
Calumet & Hecla Consolidated Copper Company	50, 000	2. 20
Miami Copper Company	36, 000	2. 30
Magna Copper Company	25, 000	2. 50
United Verde Extension Mining Co	24, 000	2. 50
Consolidated Coppermines Co	21, 000	2. 70
Copper Range Company	17, 500	3. 00

(3) In addition to the sales quotas provided above an aggregate sales quota of 9,500 tons per month shall be allocated as individual sales quotas among the producers of secondary copper by some equitable method agreed upon by such producers and approved by the Code Authority. In the event the producers of secondary copper are unable to agree then such allocation shall be made by the Administrator.

(4) Any producer who shall assent to the Code and/or Sales Plan who is entitled to, but has not received, a sales quota may apply for a sales quota. If, however, the product of such producer is treated by a custom smelter or refiner such custom smelter or refiner may, if the producer shall fail to apply for a quota, make application in its name but for the account of such producer. During the first sales period each producer of custom and by-product copper shall have a quota equal to fifty (50%) percent of the copper produced and treated at the treatment plant. The allocation of such quota in the amount of fifty (50%) percent of the production treated during such first sales period shall not serve as a precedent or in any way be controlling in the determination of the sales quota applied for by any such producer for the period subsequent to said first sales period.

(5) The Code Authority shall have no power to decrease sales quotas established pursuant to subsections (2) and (3), of this Section 6, save upon unanimous vote of the Code Authority and the consent of the party or parties whose quotas are to be thereby decreased. But the Code Authority upon a two-thirds vote of its membership and with the approval of the Administrator, may increase any such sales quota. In the event the sales quotas of primary producers are generally increased they shall be increased ratably to the end that the increase for each individual producer will be such as to arrive simultaneously at a sales quota equal to fifty (50%) percent of their respective capacities; and further in the event of any increase in quotas of primary producers proportionate increases shall be made in the sales quotas of secondary producers as shall be justified by the then existing conditions.

Nothing contained herein, however, shall be construed so as to limit the right of the Administrator at any time after proper notice and giving all parties an opportunity to be heard, to make such change as he may deem necessary in the sales quotas, or Sales Plan provided for herein.

(6) Until a change is approved by the Administrator and the Code Authority, or by the Administrator alone, the aggregate sales quotas given pursuant to Subsection (2) and Subsection (4) of this Section 6 shall not exceed twenty thousand five hundred (20,500) tons per month.

(7) Allocations of sales must be accepted by those holding sales quotas provided they have copper available for delivery within the delivery period covered by such alllocation, except as provided in Subsection (14) hereof. A member unable to accept a sales allocation shall have no right subsequently to make up the deficiency, except that if any producer or producers of secondary copper have been unable to accept future sales allocations beyond the current month to the same extent that such future allocations have been accepted by primary producers, then commencing with the first of the month for which such future sales allocations have been made all sales subject to allocation shall be allocated to such secondary producers to the exclusion of primary producers to the extent of the current intake of such secondary producers until such time as each of the secondary producers are brought into a proper relation with such primary producers as regards such allocated sales, provided, that this provision shall not be applied so as to give any producer of secondary copper a greater allocation of sales than if it had accepted all such future allocations.

(8) Sales as made shall be proportionately applied to sales quotas for the current month and at the end of the month unsold sales quotas shall be carried forward for sale and allocation during the following month, except that the unsold quotas carried forward at the end of each month for each secondary producer shall be adjusted to eliminate the tonnage by which its shortage of accumulated actual secondary intake as compared with its accumulated sales quota exceed it sales quota for one and one-half months. If sales quotas for the current month have been sold then all sales in excess thereof shall be applied to the subsequent month for which the sales quotas have not been completely sold so that sales shall be applied to sales quotas for the current month, then to each of the two succeeding months. After the sales quotas of the current month and next two months have been sold, further sales during the current month shall be allocated to and applied to copper stocks; provided, however, that prior to a general allocation to copper stocks there shall first be set aside fifty percent (50%) of all sales then to be allocated to copper stocks, which fifty percent (50%) shall be divided so that two-fifths shall go to secondary producers in proportion to their respective holdings of secondary copper accumulated since October 1, 1933, but limited in any event to such accumulations, and three-fifths to by-product and other primary stocks, and then the remaining fifty (50%) percent (or whatever larger amount there may be available pursuant to the foregoing) shall be allocated to copper stocks generally and not to sales quotas. The Code Authority shall propose a plan for the handling of such allocations to stocks generally which shall be effective when approved by the Administrator, and which shall provide for the disposal of such accumulations by an orderly liquidation, and such sales from stocks shall be Blue Eagle Copper within the meaning of this Code.

(9) The sale of copper by any member of the Industry without first having received an assignment of a sales quota pursuant to the provisions of this Code, or otherwise in contravention of any of the provisions of this Code, shall be a violation of this Code; provided, however, that holders of copper who are without sales quotas and who are unable to obtain sales quotas and custom smelters and/or refineries whose intake is in excess of their sales quota and to the extent of such excess may sell such copper but it shall not be eligible to be called Blue Eagle Copper and shall not be considered copper offered for sale pursuant to the provisions of the Copper Code, and all invoices and papers covering such transactions shall be plainly marked "The copper covered in the transaction is *Not* Blue Eagle Copper and is *Not* qualified to be used in the manufacture of any articles for sale to the U. S. Government as provided for in the President's Order of Approval for the Code of Fair Competition for the Copper Industry." All sales of copper, however, shall be promptly reported to the Sales Clearing Agent of the Code Authority.

(10) It shall be a violation of this Code for any member of the Industry by any transaction with another member to buy, sell, exchange or receive any stocks of copper so as thereby to be allowed, or enable another to participate in the Sales Plan and/or receive a sales quota and dispose of copper pursuant thereto, to an extent or in such manner as would not otherwise have been possible if such purchase, sale, exchange or receipt of copper had not taken place, provided, however, that this provision shall in no manner prohibit the bona fide sale of copper produced by the seller or owned by it on the effective date of this Code, in the event that such sale is made pursuant to the other provisions of this Code.

(11) All allocations of sales quotas and stock shall be made by the Sales Clearing Agent. A computation shall be made by the Sales Clearing Agent daily of the percentage of sales applied to each sales quota in relation to the aggregate of all quotas and a daily allocation shall be made at the average price of all sales made on that date, after making such eliminations and additions, as to sales, as may be required by virtue of the other provisions of this Code. In the event, at the end of the month, sales and purchases are necessary between those holding sales quotas in order to adjust actual sales to sales quotas, they shall be made pursuant to the daily computations and allocations made by the Sales Clearing Agent during that month. Proper allowance shall be made by the Sales Clearing Agent for differentials including freight charges, varying types and quality of copper, sales commissions, and time of delivery. Full information may be obtained upon request from the Sales Clearing Agent concerning any such computations or allocations.

(12) In order to maintain the proper relation between sales and production:

(a) Any primary producer in operation and producing copper on the effective date, or any other primary producer not producing copper on that date but which after the effective date resumes such production, which fails to produce its sales quota reasonably averaged over a period of three months, or such longer period as the Code Authority or the Administrator may have approved, shall thereafter

lose its right to participate in the allocation of sales by the Sales Clearing Agent proportionately to the extent of such decrease in production; provided, however, that the foregoing provision shall not apply in the event of a shutdown or decrease in production on account of causes beyond the control of the producer or for any reason which, in the opinion of the Code Authority and the Administrator, or the Administrator on his own initiative, justifies such shutdown or decreased production; provided, further, that in addition to limitation on sales of primary copper provided in this Article VII primary producers shall limit their production so as to conform to the plan and purpose of this Code, and to coordinate the production of primary copper with current sales quotas in order to avoid excessive accumulation of stocks and any failure reasonably so to do to the satisfaction of the Code Authority shall be a violation of this Code.

(b) No specific limitations or requirements shall be imposed upon the intake of secondary copper producers, but in lieu thereof sales of secondary copper shall be controlled and limited as provided in this Article VII. Custom smelters and/or refiners shall endeavor, so far as practicable, to limit their intake of secondary copper so as to conform to the plan and purpose of this Code, and to coordinate the flow of copper and of intake material with current sales quotas in order to avoid excessive accumulation of stocks.

(c) All consumers of copper, including fabricating or manufacturing companies owned or controlled by producers who are members of the Industry, shall be urged by the Code Authority to assist in the stabilization of the Industry by regular monthly purchases of copper in as large an amount as may be practicable in each case, and shall be similarly urged to enter into agreements to make such purchases. Upon the execution of such an agreement by a copper consumer in form and substance satisfactory to the Code Authority, or the Administrator, and for so long as the terms of such agreement are complied with, and no other copper other than Blue Eagle Copper is purchased, all copper sold and/or fabricated by such consumer shall be "Blue Eagle Copper", as defined herein. The Code Authority of this Industry shall cooperate with the Code Authority and/or Supervisory Agency of the Copper and Brass Mill Products Industry and the Wire and Cable Subdivision of the Electrical Manufacturing Industry in effectuating the purposes of the marketing and fair trade practice provisions of this Code.

(d) For the purpose of the Sales Plan, sales and/or transfers of copper by a member holding a sales quota (including any of its subsidiaries or affiliates) to its fabricating plants or to any subsidiary fabricating company, shall not be subject to said plan, except to the extent set forth in agreements made by the fabricating subsidiaries of such producer under the terms of the preceding paragraph (c); provided, however, that in case a member owning a fabricating plant or the fabricating subsidiaries of any one holding a sales quota should fail to make an agreement under the terms of the preceding paragraph (c), the sales of copper by that member shall be determined by the Administrator or in the event of his unwillingness to act, by the Code Authority.

(e) In order to provide equitably for an increase in employment by increasing current production and/or to facilitate liquidation of excessive copper stocks in a manner which will not interfere with the operation of the Sales Plan pursuant to the provisions of this Code, the Code Authority, with the approval of the Administrator may negotiate bulk sales of copper to, through, and/or with the approval of government agencies, provided, however, that no commitment shall be made for or become binding on any member of the Industry unless he shall accept the allocation made to him by the Code Authority of his proportionate share of any sale so negotiated, except to the extent he is obligated to sell copper under the provisions of this Code.

(19) Whenever, upon complaint or on its own initiative without complaint, and after affording an opportunity to any interested party to be heard, the Code Authority is of the opinion that an emergency exists within the Industry in that destructive price cutting and/or excessive production is being engaged in to such an extent as to render ineffectual or seriously endanger the effectuation of the purposes of this Code or of the Act so as to require the establishment of minimum prices for the sale of copper and/or regulation of production, the Code Authority shall certify any such conclusion to the Administrator and, upon his approval thereof, after hearing on such notice as he may prescribe, such minimum prices and/or regulation of production may be established and the Code Authority may adopt rules and regulations satisfactory to the Administrator governing the establishment of such minimum prices for the sale of copper and/or regulation of production based on such factors and/or conditions as may be found necessary to meet such emergency; provided, however, that no provision of this Code or of any rules and regulations which may be promulgated pursuant thereto shall be inter-

preted so as to require any member of the Industry to reduce his production below his sales quota as originally established pursuant to the provisions of this Code. When a minimum price as herein provided for shall be established any sale below such price will be considered destructive price cutting and a violation of this Code.

EXHIBIT NO. 2176

Public Statement Released June 27, 1939

DEPARTMENT OF JUSTICE

DIVISION FOR ENFORCEMENT OF ANTITRUST LAWS

STATEMENT OF GROUNDS FOR ACTION—INVESTIGATION OF MANAGEMENT ENGINEERING COMPANIES

CONTROL OF TRADE ASSOCIATIONS

GRAND JURY INQUIRY IN NEW YORK CITY

DEPARTMENT OF JUSTICE,
June 27, 1939.

A Federal grand jury in the Southern District of New York will shortly begin an inquiry into the control of trade associations by management engineering companies. This is a comparatively new use of trade association machinery. A brief description of this use of trade associations is necessary in order that business men be fully informed of the prosecution policy of the Department.

SCOPE OF THE INQUIRY

At the outset it should be emphasized that it is not the Department's intention to attack trade associations in themselves. They have many useful and legitimate functions, among which are the dissemination of information among the groups and the elimination of unfair marketing practices. Such functions, where not used as a cloak for activities such as price or production control, are not unreasonable restraints of trade. However, the trade association activities offer such wide opportunity for illegal restraints and coercions that constant scrutiny and immediate investigation of complaints is essential to prevent the members of these associations themselves from becoming victims of unlawful activities of management organizations. Every loose association offers opportunities for control by small cliques. Therefore, the Department's policy should be regarded not as an attack on trade associations but as an attempt to give them the maximum freedom to accomplish their legitimate purposes.

In describing the practices which are now under investigation for the benefit of those concerned with the Department's policy, names of particular concerns will be omitted. The reason for this is that the proper tribunal before which to present specific instances of violation is the grand jury. Therefore, the description which follows must not be considered a description of any particular concern, but of a pattern which is growing in use with many variations.

Assume that the manufacture of a particular product is scattered among a large number of independent units with their own counsel, their own accountants, and their own policy-making officials. Assume this condition is creating competition which hurts a small but aggressive group within the industry. Under such conditions this group often employs a management engineering firm with the publicly stated purpose of collecting statistics and disseminating information, but with the real purpose of discouraging competition.

There are many management engineering firms in America today. The scope of this investigation includes only a few of them and should not be considered a reflection against management engineering firms in general. Most of them were originally formed to assist businessmen in more efficient management. Many of them actually provide the entire management personnel during periods of crises. This has developed in some firms to the supplying of permanent management personnel.

In the hypothetical case which we are using to illustrate the general pattern, the engineering firm selected by the group desiring to eliminate competition conducts a militant campaign among the scattered manufacturers to organize them into trade associations. In such campaigns the benefits which come from higher prices and the discouragement of competition are usually emphasized. The

firms who desire to maintain their own price policies are then subjected to increasing pressure. Finally, when a majority of the units are organized the engineering firm provides the permanent personnel which operates the trade association. Through that control of the personnel the whole industry is controlled.

That control is exercised in various ways. The Department's preliminary investigation indicates that certain trade associations not only disseminate production statistics but take steps to see that their members produce no more of the total supply than these statistics indicate has been their proportionate share. These steps range from mass pressure on dissenting individuals during meetings of the association to actual boycott and retaliation. The fear of retaliation is always present because of various methods that may be employed sub rosa by a small group having permanent management control. Under such circumstances veiled threats are usually all that is required. The Department has evidence that where threats are not effective, more direct methods are often used.

Another device is tied up with cost accounting methods. Advice on accountancy is used to establish standard amounts to be charged as an expense for each operation regardless of its actual cost. Thus, a fixed and uniform differential for profit is established and maintained by the careful policing of association personnel.

Sometimes these firms also enter into direct agreements for the restriction of productive machinery.

Another device is the creation of a fund among a small group to buy competing plants which are troublesome competitors. Upon acquisition, such plants are often shut down and dismantled. Thus, the socially desirable small independent operator is eliminated from the field of competition. There is the waste of capital involved in the destruction of businesses in outlying communities, with the resulting economic dislocation. Men are thrown out of work. The independent capitalists of small cities interested in the development of a local industry are helpless either to anticipate or to take measures to prevent the destruction of that industry. This may mean the increase of local relief and tax burdens and the drying up of local initiative.

The final result of practices such as these consists in absentee control in a large center of local industries which may be thousands of miles away. The management device has the same effects as the holding company device except it operates entirely through the strategic location of trained personnel loyal to a particular group and not through stock investment.

These practices which will be investigated by the grand jury are of comparatively recent origin. There is evidence, however, that they are growing very rapidly. There are many variations to the pattern which has been described above. Moreover, there is evidence that new associations of this general character have been formed even during the progress of the preliminary investigation by the Department. The danger that inheres in this type of combination is obvious. It is not vulnerable to attack through examination by accountants because there is no formal corporate structure, as in the case of a holding company. The entire tendency of such organizations is to raise or fix prices. It possesses/the arbitrary power to move industries from one town to another without consulting local capital. It destroys the independence of local manufacturing units. Its control over price policies, production policies, and general plant policies is as great as that of a state-wide political organization over its local units. Its power of patronage and appointments in the entire industry is becoming more and more a significant factor in this type of control.

The Department of Justice is concerned not only with the use of this power but also with the very existence of the power. Arbitrary power to control, when vested in a small group, presents intangible psychological hazards to those engaged in an industry which constitute a serious threat to free enterprise. Therefore, the Department regards this grand jury investigation as one of the most important which it is now undertaking. This statement is made so that there will be no question as to its policy toward such organizations and so that no claim of acquiescence can be urged by those whom, through the limitations of time and personnel, the Department is unable to immediately investigate.

THURMAN ARNOLD,
Assistant Attorney General.

Approved:
FRANK MURPHY,
Attorney General.

EXHIBIT No. 2177

Percentages of Total "Big Four" Purchases of Hogs Taken by Each of the Four Firms Buying at Five Terminal Markets, Average 1913–17, by Years 1931–37, and Average 1931–37 [1]

Market and Firm	Av. Annual Standard Deviation 1931–37 [4]	1931	1932	1933	1934	1935
Omaha:						
Armour-Morris [3]	±2.17	45.2	45.2	44.1	45.2	44.2
Swift	2.06	24.4	24.4	25.2	24.9	24.7
Cudahy	1.88	30.4	30.4	30.7	29.9	31.1
St. Paul:						
Armour	1.97	40.3	40.2	39.9	39.6	40.0
Swift	1.97	59.7	59.8	60.1	60.4	60.0
Sioux City:						
Armour	1.89	39.8(50.1)	38.2(49.6)	38.7(50.1)	38.6(49.9)	38.1(49.6)
Cudahy	1.68	39.7(49.9)	39.1(50.4)	38.6(49.9)	38.8(50.1)	38.7(50.4)
Swift	2.12	20.5(—)	22.7(—)	22.7(—)	22.7(—)	23.2(—)
St. Joseph:						
Swift	1.84	57.8	53.6	53.1	52.9	53.1
Armour-Morris [3]	1.84	42.2	46.4	46.9	47.1	46.9
Oklahoma City:						
Armour-Morris [3]	1.09	49.9	50.2	52.3	50.3	50.1
Wilson	1.09	50.1	49.8	47.7	49.7	49.9
Average	1.80	------	------	------	------	------

Market and Firm	1936	1937	Percentage av. 1931–37	Percentage av. 1913–17	Estimated Percentage 1906–11 [2]
Omaha:					
Armour-Morris [3]	44.0	43.9	44.6	46.6 [3]	45
Swift	24.9	24.9	24.8	24.2	25
Cudahy	31.1	31.2	30.7	29.2	30
St. Paul:					
Armour	40.6	43.6	40.6	no plant	------
Swift	59.4	56.4	59.4	------	------
Sioux City:					
Armour	39.2(50.6)	39.3(50.8)	38.8(50.1)	—(50.3)	------
Cudahy	38.3(49.4)	38.1(49.2)	38.8(49.9)	—(49.7)	------
Swift	22.5(—)	22.6(—)	22.4(—)	no plant	------
St. Joseph:					
Swift	53.3	53.1	53.8	48.4	------
Armour-Morris [3]	46.7	46.9	46.2	51.6 [3]	------
Oklahoma City:					
Armour-Morris [3]	50.0	49.8	50.4	50.6	------
Wilson	50.0	50.2	49.6	49.4	------
Average	------	------	------	------	------

[1] Data for 1931-37 computed by W. H. Nicholls and I. W. Arthur from weekly reports of *National Provisioner*. Data for 1913–17 computed from Federal Trade Commission, Report on the Meat Packing Industry, Part II.

[2] Testimony of former hog buyer for major company at Omaha, Federal Trade Commission, op. cit., Part II, p. 29.

[3] Armour and Morris merged in 1923. Figures for 1913–17 and 1906–11 are the total of Armour and Morris percentages at each market.

[4] Standard deviation of weekly percentages from annual mean percentage was calculated for each year 1931–37 and then average 1931–37 computed. Slight adjustments, involving elimination of a very few obviously extreme items, were made for St. Paul (1933); St. Joseph (1931 and 1937); and Oklahoma City, (1933).

SUPPLEMENTAL DATA

The following letter is included at this point in connection with the testimony of Arthur Notman, supra, p. 13279 et seq.

Office of the President

ANACONDA COPPER MINING COMPANY,
25 Broadway, New York, March 6, 1940.

Honorable JOSEPH C. O'MAHONEY,
Chairman, Temporary National Economic Committee,
Senate Office Building, Washington, D. C.

MY DEAR SENATOR: After the conclusion of the hearings on the copper industry before your Committee, we were requested by Mr. David E. Scoll, Counsel, and by his assistant, Dr. Samuel Moment, to prepare and submit a statement covering certain phases of the testimony of Mr. Arthur Notman before the Committee at its session on Friday, January 19, 1940, so that the same might be included in the final record of the proceedings. It is my understanding from my conversation with you that any statement which we might desire to submit in rebuttal of Mr. Notman's testimony would be received by you and included in the record.

In accordance with the instructions of Mr. Scoll and Dr. Moment, I enclose herewith a statement replying to certain statements and conclusions made by Mr. Notman and setting forth facts which I believe will be of interest to your Committee.

I assume that if this statement is satisfactory you will take such action as is necessary to have the same inserted in the record.

I wish to thank you for the opportunity of submitting the enclosed material and would respectfully request that you either communicate with me here or with Mr. E. O. Sowerwine, Assistant to the President, Anaconda Copper Mining Company, 25 Broadway, New York City, if you have any questions regarding the same.

With kind personal regards, I am

Very sincerely yours,

CORNELIUS F. KELLEY.

The Anaconda Copper Mining Company desires to submit the following statement with reference to certain statements made by Mr. Arthur Notman before the Temporary National Economic Committee January 19, 1940.

The statement was made that there was no relation between the price of copper and that of finished products, such as copper wire (base sizes), copper sheet and high brass sheet. The differential with respect to high brass sheet should be calculated in comparison with the cost of the proportionate amounts of copper and zinc, rather than with the price of copper alone. As shown on the detailed exhibit filed by Mr. Notman, the average price of zinc in 1909–1912 was 6.05¢ per pound, or 0.59¢ higher than the average price during 1935–1938. Yet in his testimony Mr. Notman stated: "In the early period, the average price for zinc was 6.95¢ and in the later period it was 5.46¢ * * * actually nearly a cent and a half less * * *."

Using the proportions and prices per pound cited by Mr. Notman, the average cost of the two metals making up high brass sheets in 1909–12 was 11.135¢ per pound and in 1935–38 8.669¢ per pound, compared with brass sheet average price of 14.025¢ and 16.545¢ respectively. Thus the differentials were 2.89¢ and 7.876¢ per pound, or an increase of 172.5%. The differentials on copper wire increased from 1.38¢ to 3.5¢ or 153.6% and on copper sheets from 4.73¢ to 7.85¢ (not 7.5¢), an advance of 66%.

With respect to the recital of the increase of differential between the raw metal prices and the fabricated material prices in the interval of twenty-six years elapsing between the 1909–1912 and the 1935–1938 periods, the basic factors had changed materially. Cost of supplies had advanced. Wages, freight rates, and particularly taxes of all kinds had increased tremendously. In addition, specifications and requirements of the trade as to quality had become so much more rigorous that it may be stated authoritatively that "not a single pound of wire, copper sheet or high brass sheet produced in 1909–12 would pass inspection according to the standards of 1935–38." This improvement of quality resulted in increased direct cost and in quantity of mill scrap which required re-processing. Without attempting to speak for the entire industry, the actual records of the American Brass Company may be assumed to be fairly representative.

Based upon actual records for the two four-year periods 1909–12 and 1935–38:

Wages—per hour—common labor	INCREASED 240%
" " " all classes	INCREASED 214%
Labor and expenses combined	INCREASED 139%
Car load freight rates	INCREASED 79% to 140%
TAXES	INCREASED 120%

As a result—

Net Profit of the Company—before Federal Income Taxes	DECREASED 29%
" " " " " after " " "	DECREASED 48%
" " per pound of product before Federal Income Taxes	DECREASED 47%
" " per pound of product after Federal Income Taxes	DECREASED 61%
Per Cent Earned on Capital Invested before Federal Income Taxes	DECREASED 72%
Per Cent Earned on Capital Invested after Federal Income Taxes	DECREASED 80%

In another part of his testimony Mr. Notman stated: "Prior to the acquisition of the American Brass Company by the Anaconda Copper Mining Company the American Brass Company made money every year, regardless of the fluctuations in the cost of their raw material, they made money whether copper was high or whether copper was low, because they were in a position to hedge their raw material purchases" * * * "I know that prior to integration all of them did." These statements are not consistent with the facts. At no time in the existence of the American Brass Company, before or since its integration with Anaconda Copper Mining Company, has that company hedged on its purchases of copper by dealings on a commodity exchange or otherwise.

Published data with respect to other companies is not readily available because they were not in existence during 1909–1912 or have lost their identity due to mergers and consolidations. Published data respecting the Scovill Manufacturing Company, an independent producer of brass products—though not directly comparable due to difference in character of operations and products—show that the percent earned on invested capital in 1935–38 was 60% less than in 1909–12.

The following statement has been received from Mr. Henry L. Jenkins, formerly Comptroller of the National Conduit and Cable Company and the National Brass Company:

"I know of no occasion when the National Conduit & Cable Co., or the National Brass & Copper Tube Co., a subsidiary of the Cable Company, ever hedged any of their purchases of copper by dealings on commodity exchanges or any other source. My personal experience in this direction would go back to either 1900 or 1901.

While it is not pertinent to your question, but going a little further, I know of only a few isolated cases where speculation in copper was ever made. The few instances that I do have knowledge of resulted in both losses and profits.

Whatever profits were made by the National Conduit & Cable Co. and the National Brass & Copper Tube Co., were made from the actual fabrication of copper into wire, cables and brass products.

To the above information, I should be glad to testify at any time or place."

Mr. C. Donald Dallas, President of Revere Copper & Brass Incorporated, states:

"Mr. Notman made the statement that the fabricators made money consistently during the period 1909–12 without regard to increase or decrease in the price of copper because they were in a position to hedge their purchases. I do not find any basis in fact for this statement.

While a copper contract for trading in Standard copper has been in existence in this Country for many years (possibly 50), the trading of this commodity was negligible or almost non-existent until seven or eight years ago. As a matter of fact, trading in copper on the Commodity Exchange was of no importance as a hedging operation until about three years ago. Up until that time there was not sufficient interest, on the part of the speculators, in copper to permit free trading in this commodity. Without a broad market, obviously, it was not safe to hedge through the Commodity Exchange.

While it would have been possible to carry out hedging operations through the London Metal Exchange, I question very much if any company in this Country followed this practice during the period in question. I do know from positive information that none of the companies that now make up Revere ever gave the slightest consideration to hedging on purchases of copper.

While no figures for net profit for the constituent companies of Revere during the period 1909–12 are available, our profit during the period 1935–38 before

income tax amounted to $1,561,714.02 as shown in our published statements. After income tax profits amounted during this period to $738,714.02.

During this period we earned only 8.75% on our invested capital which is only an average of 2.19% per year. After deducting income taxes our earnings were only 4.4% or an average of 1.1% per year."

Mr. Dwight R. G. Palmer, President of General Cable Corporation, states:

"It is unfortunate that records of our constituent companies for the period 1909–12 are not available for any accurate determination of selling prices in that period to compare with selling prices in the period 1935–38. There can be no question, however, that such profits as may have been made by those companies in 1909–12 were not the result of hedging operations in copper. At that time there was no place in the United States where hedging operations could have been conducted and I am positive that it never occurred to the officers of those companies that a hedging operation might have been conducted on the London Metal Exchange.

During the period 1935–38, General Cable's profit after bond interest but before income taxes amounted to $2,951,239.48 as shown in our published statements. After providing for income taxes, profit for the same period amounted to $2,401,239.48.

During the period 1935–38 earnings were 18.1% on our invested capital, before income taxes, an average of 4.5% per year. After providing for income taxes, earnings were 14.7%, or an average of 3.7% per year. It should be noted in this connection, however, that we made reductions of approximately $16,000,000 in our stated value of invested capital during the years 1931 to 1936. If we were to compute earnings on invested capital before these adjustments, our earnings before income taxes would be 9.1% or 2.3% per year. After providing for income taxes, earnings on this basis would be 7.4% or 1.9% per year."

The average price of electrolytic copper, based upon quotations in Exhibit No. 2169 filed by Mr. Notman, show an average for the years 1909–12 of 13.755¢ per pound and for the period 1935–38 an average of 10.55¢ per pound. The published data is available for the following producing companies which were in operation during both periods: Anaconda Copper Mining Company, Phelps Dodge Corporation, Isle Royale Copper Company, Miami Copper Company, Copper Range Company, Calumet & Hecla Consolidated Copper Co. Based upon published reports, these companies earned an average of 13.54% per annum on their invested capital during the years 1909–12. The average earnings for 1935–38 were 3.98%, or a decrease of 70.6%.

Attached hereto is a chart for the years 1908–1938 inclusive showing (a) Index of Manufacturing Wages, compiled from published data of the U. S. Department of Labor, (b) Copper Sheet Differential, (c) High Brass Sheet Differential, based upon a composite of copper and zinc prices in the proportion of 66% copper and 34% zinc, and (d) Copper Wire Differential. These differentials are calculated not from the high and low of each year, but from monthly averages published in the yearbook "Metal Statistics" of the American Metal Market.

As shown on this chart the Index of Manufacturing Wages increased 175% between 1908 and 1938. To secure a fair comparative index of costs and prices in recent years one must eliminate both the pre-war years and those in which the World War created such abnormal changes. A natural division of the remaining period shown on the chart would be the years 1919–1930 and 1931–1938. During the latter period the burden of taxes has steadily increased but volume of business has been materially reduced due to the depression which has been more pronounced in the United States than in the rest of the world. Yet the differentials between prices of fabricated products and the prices of the refined metals actually decreased in two of the three products, as follows:

Fabricating differentials, cents per pound (including freight on copper and zinc to fabricators' plants)

	1919–1930	1931–1938	Increase	Decrease
Copper Wire	2.39	3.21	0.82	
Copper Sheet	8.87	8.28		0.59
High Brass Sheet	7.72	7.61		0.11

The fabricator and not the public has borne the burden of these last eight years. It could not be otherwise, since the prices which he receives for his products are governed, not by himself or by any agency that cares whether they are above or

below cost, but by supply and demand. The result of this interaction of supply and demand, acting through the typical "buyer's market" of the last eight years, has been to lower the cost of fabricated products to the consumer. There remains the question of overall cost of fabricated products to the consumer. He is interested solely in this overall cost, and the sharpening or slackening of his demand determines what that cost shall be. The following table shows, not differentials, but the overall prices from which, in the previous table, the differentials were derived:

Prices of fabricated products, cents per pound

	1919–1930 Inclusive	1931-1938 Inclusive	Percent Decrease
Copper Wire	17.19	12.12	29.5%
Copper Sheet	23.66	17.19	27.3%
High Brass Sheet	19.78	15.11	23.6%

Whether considered from the point of view of producers or fabricators, the injured party is the stockholder, who has not received a fair return on his investment.

The following reports are herewith incorporated by request of the Chairman, supra, p. 13239.

("Associations of Producers of Agricultural Products," Report No. 24, 1st Session, 67th Congress:)

"Mr. Volstead, from the Committee on the Judiciary, submitted the following

"REPORT

"(To accompany H. R. 2373.)

"The Committee on the Judiciary, to whom was referred the bill (H. R. 13931) entitled 'A bill to authorize association of producers of agricultural products,' having considered the same, report it with the recommendation that it do pass with an amendment.

"The object of this bill is to authorize the producers of agricultural products to form associations for the purpose of collectively preparing for market and marketing their products.

Section 1 defines and limits the kind of associations to which the legislation applies. These limitations are aimed to exclude from the benefits of this legislation all but actual farmers and all associations not operated for the mutual help of their members as such producers. Unless each member has but one vote in his association, irrespective of the amount he may have invested as capital therein, the association must not pay a dividend of to exceed 8 per cent per annum. This limitation of 8 per cent is designed to compel payment to the members of as large a part of the proceeds derived from the sale of their products as possible, instead of paying it as a dividend upon the money used as capital. A number of farm associations oppose the payment of any dividend on capital, while others insist that they need a capital and must have the privilege of paying dividends. Eight per cent was fixed for the reason that in many places money can not be borrowed at a less rate, and that hence a less rate would prevent some of these associations from obtaining the necessary funds to carry on their business. The aim has been to make the provisions of the bill sufficiently liberal so that all cooperative farm associations operated in good faith for the benefit of its members might avail themselves of the provisions of this bill. The bill does not, however, compel any association to change its present organization nor does it create any new organizations. Associations will continue to be formed under State laws as heretofore. In States where it is illegal to operate an association such as the ones permitted under this bill, it will, because of the nature of such associations, be practically impossible to operate under this legislation, as the bill only grants the right to operate in interstate and foreign commerce. That is the only power that Congress can confer upon such associations.

"Section 2 makes applicable to these associations in a modified form the provisions of the Clayton Act. Briefly, it gives the Secretary of Agriculture power

to prevent these associations from exploiting the public. In the event that any association should refuse to comply with the order of the Secretary, a suit may be brought in the appropriate district court to enforce his order. The farmers are not asking a chance to oppress the public, but insist that they should be given a fair opportunity to meet business conditions as they exist—a condition that is very unfair under the present law. Whenever a farmer seeks to sell his products he meets in the market place the representatives of vast aggregations of organized capital that largely determine the price of his products. Personally he has very little if anything to say about the price. If he seeks to associate himself with his neighbors for the purpose of collectively negotiating for a fair price, he is threatened with prosecution. Many of the corporations with which he is compelled to deal are each composed of from thirty to forty thousand members. These members collectively do business as one person. The officers of the corporation act as agents of these members. This bill, if it becomes a law, will allow farmers to form like associations, the officers of which will act as agents for their members.

"To illustrate: In marketing his grain, the farmer in the grain-raising section of this country usually has to deal with what is known as a line elevator, owned by a corporation that has an elevator or warehouse at every railway station on one or more railway lines extending across one or more States. The corporation operating these elevators acts as the common marketing agency for all of them, both in domestic and foreign trade. There are a great many so-called farm elevators owned by associations of farmers; but as they can not under existing law combine for the purpose of creating a common marketing agency they are at a great disadvantage. No large mill can afford to deal with these farm elevators as they can not contract to furnish enough grain to supply the needs of such a mill at all seasons of the year. As a consequence they are forced to sell their grain to the large terminal elevator companies that usually dominate these so-called line elevators.

"While this bill confers on farmers certain privileges, it can not properly be said to be class legislation. Business corporations have under existing law all the powers and privileges sought to be conferred on farm organizations by this bill. Instead of granting a class privilege, it aims to equalize existing privileges by changing the law applicable to the ordinary business corporations so the farmers can take advantage of it. It is no answer that farmers may acquire the status and secure the rights of a business corporation by deeding their farms to a corporation. That is neither practical nor desirable from any standpoint. Without doing that they can not associate themselves together for the mutual profit of the members without being threatened with prosecution.

"This bill directs the Secretary of Agriculture to supervise these associations. The reason for that is apparent when one considers the duties and the organization of that department. The Secretary has for many years aided farmers in forming such associations, and his department is thoroughly familiar with the needs and the difficulties under which they always have to struggle. There is in his department a Bureau of Markets that is constantly engaged in studying marketing conditions and prices of agricultural products both in this and foreign countries. As a consequence he is especially well equipped for the purpose of determining whether the prices charged by any of these associations are excessive. That is one of the duties that somebody must perform to safeguard the public.

"If it is safe not to place a limit upon the size of an ordinary corporation, there certainly is no reason to fear monopoly from farm associations. But in the event that any such association should monopolize or restrain trade so as to unduly enhance the price of any agricultural product ample provision is made in the bill to protect the public. The Secretary of Agriculture in a sundry fashion can grant relief, and he, with his expert knowledge always at hand, can act more expeditiously than could any other agency. In the event an association fails to abide by his judgment it can not only be hailed into court but a temporary injunction can at once be issued against it.

"In the event that associations authorized by this bill shall do anything forbidden by the Sherman Antitrust Act, they will be subject to the penalties imposed by that law. It is not sought to place these associations above the law but to grant them the same immunity from prosecution that corporations now enjoy so that they may be able to do business successfully in competition with them.

"New York, Pennsylvania, Illinois, Wisconsin, Minnesota, and a number of other States have granted the right to form associations such as those contemplated in this bill. But these States can not confer any right upon their organizations to

engage in interstate or foreign commerce. This bill is designed to grant that right. Associations of this kind are common in European countries and have been in operation for many years. Their effect has not been to raise prices to the consumer. In many instances the effect has been the reverse. They have tended to prevent much of the gambling in foodstuffs and to eliminate many of the useless middlemen that stand between the producers, the retailers, and the consumers. It is one of the chief problems of these associations to reach the consumer with as little expense as possible. Farmers ought to be given a chance to do that. The high cost of living can not be solved by discouraging agriculture. It must be solved by fair treatment of those engaged in that pursuit. To maintain his self-respect and the dignity of his occupation the farmer must be given an opportunity to deal in selling his products on an equal footing with those who purchase it. He should be given an opportunity to help solve in a rational and fair way the problems involved in the high cost of living.

"Both the great political parties in their last national platforms pledge their support to this legislation.

"Amend bill by adding on page 1 on line 4 after the word 'dairymen' the word 'nut.'"

("Authorizing Association of Producers of Agricultural Products," Report No. 236, 1st Session, 67th Congress:)

"Mr. WALSH of Montana, from the Committee on the Judiciary, submitted the following

"REPORT

"(To accompany H. R. 2373.)

"The Committee on the Judiciary, to whom was referred the bill (H. R. 2373) to authorize association of producers of agricultural products, having considered the same, report favorably thereon with the recommendation that the bill do pass with the following amendment:

"Strike out all of said act after the enacting clause and substitute therefore the following:

" 'That persons engaged in the production of agricultural products as farmers, planters, ranchmen, dairymen, nut or fruit growers may act together in associations, corporate or otherwise, with or without capital stock, in collectively handling and marketing in interstate and foreign commerce such products of the persons so engaged and in processing or preparing such products for so marketing the same. Such associations may have marketing agencies in common; and such associations and their members may make the necessary contracts and agreements to effect such purposes: Provided, however, That such associations are operated for the mutual benefit of the members thereof, as such producers, and conform to one or both of the following requirements: First, that no member of the association is allowed more than one vote because of the amount of stock or membership capital he may own therein; or, second, that the association does not pay dividends on stock or membership capital in excess of 8 per centum per annum: And provided further, That the association shall not deal in products of nonmembers to an amount greater in value than such as are handled by it for members.

" 'Nothing herein contained shall be deemed to authorize the creation of, or attempt to create, a monopoly, or to exempt any association organized hereunder from any proceedings instituted under the act entitled "An act to create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September 26, 1914, on account of unfair methods of competition in commerce.'

"The foregoing is a reproduction of the House bill, omitting therefrom section 2, and adding thereto the provision to guard against the establishment of a monopoly, in substance like the amendment proposed by this committee and adopted by the Senate in a like bill which passed the House at the last session, and the further provision to meet an important change appearing in the bill before us, the purpose of which evidently is to permit the associations to deal in products of nonmembers. A slight change is made in the language of the bill that its scope may not be so extensive as to be in part without the field of interstate or foreign commerce, the expression 'in collectively processing, preparing for market, handling, and marketing in interstate and foreign commerce' becoming 'in collectively handling and marketing in interstate and foreign commerce such products of persons so engaged and in processing or preparing such products for so marketing the same.'

"The hearings conducted by the subcommittee have confirmed the members thereof in the conviction that the amendment insisted upon by the Senate at the last session is essential for the protection of the consuming public and can do no possible harm to the great body of farmers in whose interest the legislation is demanded.

"Inasmuch as it is utterly impossible to establish a monopoly of any of the ordinary farm products, cereals, cotton, live stock, etc., an inhibition of monopoly must be unobjectionable to the producers of such. Moreover, your committee is entirely satisfied that they have no desire or purpose to establish a monopoly. Why anyone should insist, under these circumstances, on the enactment of a law which, in terms, would authorize them to do so, your committee finds it impossible to understand.

"It is possible, however, to establish a monopoly with respect to farm products which can be produced profitably only in a very limited area, or in the case of highly perishable products, like milk, which will not stand shipment long distances. It would not be in the public interest, your committee believes, to permit all producers of milk within the area from which one of our great cities is supplied to effect a single organization having thus a monopoly which might or might not be utilized to exact extortionate prices of consumers. Your committee sees no good reason why two, three, a half dozen, or a dozen cooperative associations might not properly be organized for the purpose of supplying a city with its milk, nor why, in the case of raisins, for instance, produced only within a limited area in the State of California, a monopolistic organization should be permitted and encouraged, rather than two or three cooperative associations organized and operating on similar lines.

"Section 2 of the House bill has for its purpose the alleviation of the evils of monopoly, or those that may follow from authorized combinations, by the granting of something like supervisory control to the Secretary of Agriculture. It was quite generally understood by the committee when the bill was before it at the last session that this section gave to the Secretary of Agriculture the authority to fix prices. The proponents of this bill, however, repudiate that idea and insist that it is not the proper construction of the bill, and assert that they are resolutely opposed to reposing such power in the Secretary of Agriculture. They assert that the bill gives to the Secretary power to declare that a price charged is unreasonable, but gives him no power to fix what is a reasonable price. It is quite likely that even if he were given power to determine what is a reasonable price the provision would be inoperative, as conditions might so change pending a hearing as that the result arrived at would be eminently unjust so far as prices for the future are concerned. However that may be, the experience of the Interstate Commerce Commission under a similar provision, giving it power to determine what is an unreasonable rate but no power to determine what is a reasonable rate, satisfies your committee that as this provision is construed by the proponents of the bill, and perhaps correctly, it is utterly valueless. If competition is preserved—that is to say if no monopoly can exist under the act—regulatory provisions are superfluous.

"The bill before us during the last session authorized the organization of associations dealing in 'products of their members.' The bill now under consideration authorizes them to deal in the 'products of persons so engaged.' Obviously, under the former the associations would be restricted in their dealings to members; in the latter, though they are restricted as to the character of the products in which they may deal, it is clear that they may deal with any person in such products, whether he be a member or not.

"The bill has for its purpose the removal of obstacles, if such there be in the Federal statutes, in the way of the organization of cooperative farm marketing associations, a purpose with which the majority, at least, of your committee is in full sympathy. It may be, and probably is, true that such associations cannot operate with the highest degree of success, or with that degree of success which your committee would be glad to see attend their efforts, unless they are permitted to deal to some extent in the products of non-members similar in character to those handled for the members. But the protection of the statute ought not to be given to a small number of persons of the classes named in the bill who contribute from their own farms an inconsiderable quantity of the products handled by the association.

"A further condition is accordingly added to those set out in the bill as requisite in order that the benefit of the act may be enjoyed, namely:

" 'And provided further, That the association shall not deal in products of nonmembers to an amount greater in value than such as are handled by it for members.'

"By the terms of the bill the persons mentioned therein are authorized to associate themselves 'in collectively processing, preparing for market, handling and marketing in interstate and foreign commerce such products of persons so engaged,' namely, agricultural products. If the processing or preparing for market is not limited to activities of that character, directly connected with interstate or foreign commerce, they would not be within the domain of Federal legislation, and the phrase in the bill 'in interstate and foreign commerce' can not be read as qualifying 'processing,' whatever may be the case as to 'preparing for market.' The language of the bill is accordingly modified, or perhaps transposed, so as to read 'in collectively handling and marketing, in interstate and foreign commerce, such products of persons so engaged and in processing or preparing such products for so marketing the same.' "

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